HTTP Load Balancer Sizing

F5 Distributed Cloud HTTP Load Balancer provides global application delivery with intelligent routing, health checks, TLS termination, and integration with security services.

Load Balancer Requirements

Application Inventory

How many HTTP/HTTPS applications need load balancing?

ENVIRONMENT	APPLICATION COUNT
Production	Enter value
Staging/QA	Enter value
Development	Enter value
Total	Enter value

Virtual Host Details

For each application, provide virtual host information:

APPLICATION NAME	DOMAIN(S)	PORT(S)	PROTOCOL
Enter value	Enter value	☐ 80 ☐ 443 ☐ Other: Enter value	☐ HTTP ☐ HTTPS ☐ Both
Enter value	Enter value	☐ 80 ☐ 443 ☐ Other: Enter value	☐ HTTP ☐ HTTPS ☐ Both
Enter value	Enter value	☐ 80 ☐ 443 ☐ Other: Enter value	☐ HTTP ☐ HTTPS ☐ Both
Enter value	Enter value	☐ 80 ☐ 443 ☐ Other: Enter value	☐ HTTP ☐ HTTPS ☐ Both
Enter value	Enter value	☐ 80 ☐ 443 ☐ Other: Enter value	☐ HTTP ☐ HTTPS ☐ Both

Base Package

The base package includes 1 load balancer. Additional load balancers are available as add-ons.

Traffic Volume

Request Metrics

METRIC	AVERAGE	PEAK
Requests per second	Enter value	Enter value
Concurrent connections	Enter value	Enter value
Bandwidth (Mbps)	Enter value	Enter value

Traffic Patterns

What are your traffic patterns?

- Steady throughout the day
- Business hours peaks
- Seasonal peaks (specify):
- Event-driven spikes
- Unpredictable

Geographic distribution of users:

REGION	TRAFFIC PERCENTAGE
North America	Enter value %
Europe	Enter value %
Asia-Pacific	Enter value %
South America	Enter value %
Other	Enter value %

Origin Pool Configuration

Origin Server Details

For each application, describe origin servers:

APPLICATION	ORIGIN TYPE	COUNT	LOCATION
Enter value	☐ IP ☐ FQDN ☐ K8s Service	Enter value	Enter value
Enter value	☐ IP ☐ FQDN ☐ K8s Service	Enter value	Enter value
Enter value	☐ IP ☐ FQDN ☐ K8s Service	Enter value	Enter value

Origin Connectivity

How will F5 XC reach your origin servers?

- **Public Internet** - Origins have public IP addresses
- **Customer Edge** - Via F5 CE deployed in your environment
- **Cloud Site** - Via F5 site in AWS/Azure/GCP
- **Private Link** - Direct cloud connectivity

Origin Protocol

What protocol to use when connecting to origins?

APPLICATION	ORIGIN PROTOCOL	ORIGIN PORT
Enter value	☐ HTTP ☐ HTTPS	Enter value
Enter value	☐ HTTP ☐ HTTPS	Enter value
Enter value	☐ HTTP ☐ HTTPS	Enter value

Load Balancing Configuration

Load Balancing Algorithm

Preferred load balancing algorithm:

- **Round Robin** - Distribute evenly across origins
- **Least Connections** - Send to origin with fewest active connections
- **Random** - Random selection
- **Source IP Hash** - Consistent routing based on client IP
- **Ring Hash** - Consistent hashing for cache efficiency

Session Persistence

- Yes - Source IP based
- Yes - Cookie based
- Yes - Header based
- No - Stateless application

Persistence timeout:

Health Checks

Health check requirements:

PARAMETER	VALUE
Health check type	☐ HTTP ☐ HTTPS ☐ TCP
Check interval	Enter value seconds
Check path (HTTP)	Enter value
Expected response code	☐ 200 ☐ 2xx ☐ Custom: Enter value
Healthy threshold	Enter value consecutive checks
Unhealthy threshold	Enter value consecutive checks

TLS Configuration

TLS Termination

Where should TLS be terminated?

- **At F5 XC** - F5 terminates TLS, connects to origin over HTTP/HTTPS
- **End-to-End** - F5 terminates and re-encrypts to origin
- **Pass-Through** - TLS passes through to origin (TCP LB only)

Certificate Management

How will TLS certificates be managed?

- **Automatic** - F5 XC provisions via Let's Encrypt
- **Custom** - We provide our own certificates
- **Mixed** - Different per application

Custom certificate details:

DOMAIN	CERTIFICATE TYPE	KEY TYPE
Enter value	☐ Single ☐ Wildcard ☐ SAN	☐ RSA 2048 ☐ RSA 4096 ☐ ECC
Enter value	☐ Single ☐ Wildcard ☐ SAN	☐ RSA 2048 ☐ RSA 4096 ☐ ECC

TLS Requirements

REQUIREMENT	VALUE
Minimum TLS version	☐ TLS 1.2 ☐ TLS 1.3
Cipher suite preference	☐ Default ☐ Custom
HSTS enabled	☐ Yes ☐ No
HTTP to HTTPS redirect	☐ Yes ☐ No

Mutual TLS (mTLS)

Do you require mTLS client authentication?

- Yes - Clients must present certificates
- No

If yes:

- Client (
- XFCC header forwarding needed: ☐ Yes ☐ No

Traffic Management

Routing Rules

- **Path-based routing** - Route based on URL path
- **Header-based routing** - Route based on HTTP headers
- **Query parameter routing** - Route based on query strings
- **Method-based routing** - Route based on HTTP method

Example routing requirements:

CONDITION	DESTINATION
Path: /api/*	API origin pool
Header: X-Version: v2	V2 origin pool
Enter value	Enter value

Traffic Policies

- Request header insertion/modification
- Response header insertion/modification
- URL rewriting
- Request body buffering
- Response compression

Timeouts and Limits

PARAMETER	VALUE
Request timeout	Enter value seconds
Idle timeout	Enter value seconds
Maximum request body size	Enter value MB

High Availability

Multi-Region Deployment

- Yes - Active/Active across regions
- Yes - Active/Standby failover
- No - Single region

Regions required:

- North America
- Europe
- Asia-Pacific
- South America

Origin Failover

Do you have multiple origin pools for failover?

- Yes - Automatic failover between pools
- No - Single origin pool

Failover configuration:

PRIMARY POOL	SECONDARY POOL	FAILOVER CONDITION
Enter value	Enter value	☐ Health check ☐ Manual

Security Integration

WAF Integration

Should WAF be enabled on this load balancer?

- Yes - Apply WAF policy
- No - Load balancing only

Bot Defense Integration

Should Bot Defense be enabled?

- [ ] Yes - Apply bot defense
- [ ] No

Service Policies

- [ ] IP allowlist/denylist
- [ ] Geo-blocking
- [ ] Rate limiting
- [ ] Custom rules

Number of service policy rules: _____

Observability

Logging Requirements

What logging do you need?

- [ ] Access logs (all requests)
- [ ] Security event logs
- [ ] Error logs only
- [ ] Custom log format

Log Destinations

Where should logs be sent?

- [ ] F5 XC Console (default)
- [ ] External SIEM: _____
- [ ] Cloud storage (S3, etc.): _____

Metrics and Monitoring

What metrics do you need?

- Request rate
- Response time / latency
- Error rates
- Origin health status
- Bandwidth utilization

Summary: HTTP Load Balancer Requirements

REQUIREMENT	VALUE
Number of Load Balancers	Enter value
Total Applications	Enter value
Estimated Peak RPS	Enter value
TLS Certificate Management	☐ Automatic ☐ Custom ☐ Mixed
WAF Integration	☐ Yes ☐ No
Multi-Region	☐ Yes ☐ No
Session Persistence	☐ Yes ☐ No

Additional notes or special requirements: