



SCALEOUT

Configuration Management Tools -
Serverless



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- Serverless Computing
 - Cloud-Computing execution model
 - Serverless doesn't mean you don't need servers
 - Instead you abstract away the technical cluster operation responsibilities.

- Function as a Service
 - Providers
 - Google Cloud Functions (Firebase Functions)
 - AWS Lambda
 - Azure Functions
 - Open Source
 - OpenFaaS
 - Knative

- Compute
 - Runs in stateless compute containers
 - Event-triggered
 - Ephemeral
 - Api-Gateway

- Benefits

- Reduced operational cost
- (Reduced development cost)
- Scaling costs
- Occasional requests
- Inconsistent traffic
- Optimization is the root of some cost savings
- Easier operational management
- Scaling benefits of FaaS beyond infrastructure costs
- Reduced packaging and deployment complexity
- Time to market and continuous experimentation

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- Drawbacks
 - Multitenancy problems
 - Vendor-lock in
 - Security
 - Repetition of logic
 - Loss of server optimization
 - No in-server state
 - Implementation Considerations
 - Configuration
 - DoS yourself
 - Execution duration
 - Startup latency (Cold Starts)
 - Testing
 - Debugging
 - Deployment, packaging, and versioning
 - Discovery
 - Monitoring
 - Deferring of operations
 - State management

Serverless

The next era of cloud computing