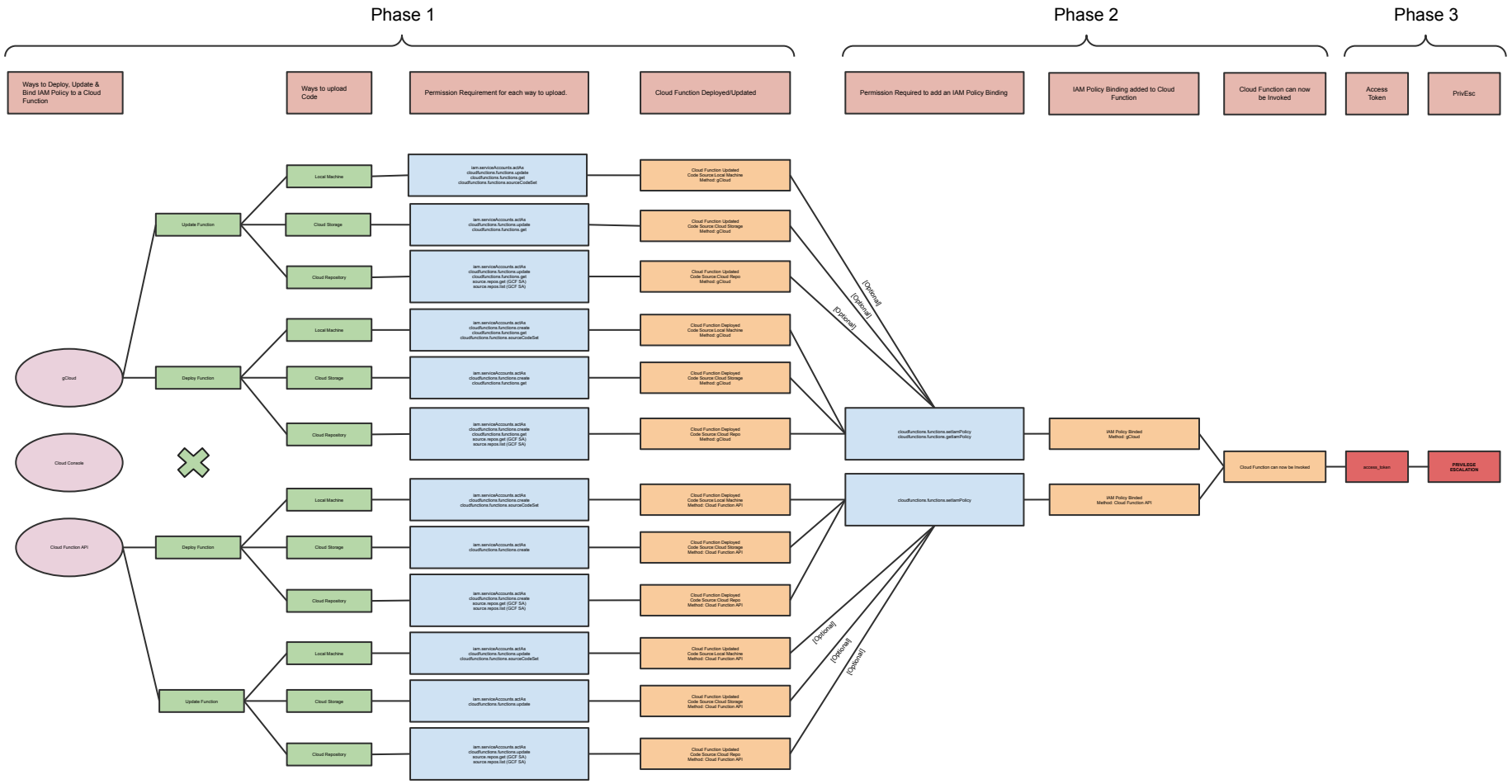
Phase 1
Phase 2
Phase 3
Ways to Deploy, Update & Bind IAM Policy to a Cloud Function
Ways to upload Code
Permission Requirement for each way to upload.
Cloud Function Deployed/Updated
Permission Required to add an IAM Policy Binding
IAM Policy Binding added to Cloud Function
Cloud Function can now be Invoked
Access Token
PrivEsc
gCloud
Cloud Console
Cloud Function API
Update Function
Deploy Function
Deploy Function
Update Function
Local Machine
Cloud Storage
Cloud Repository
Local Machine
Cloud Storage
Cloud Repository
Local Machine
Cloud Storage
Cloud Repository
Local Machine
Cloud Storage
Cloud Repository
iam.serviceAccounts.actAs
cloudfunctions.functions.update
cloudfunctions.functions.get
cloudfunctions.functions.sourceCodeSet
iam.serviceAccounts.actAs
cloudfunctions.functions.update
cloudfunctions.functions.get
iam.serviceAccounts.actAs
cloudfunctions.functions.update
cloudfunctions.functions.get
source.repos.get (GCF SA)
source.repos.list (GCF SA)
iam.serviceAccounts.actAs
cloudfunctions.functions.create
cloudfunctions.functions.get
cloudfunctions.functions.sourceCodeSet
iam.serviceAccounts.actAs
cloudfunctions.functions.create
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cloudfunctions.functions.sourceCodeSet
iam.serviceAccounts.actAs
cloudfunctions.functions.update
iam.serviceAccounts.actAs
cloudfunctions.functions.update
source.repos.get (GCF SA)
source.repos.list (GCF SA)
Cloud Function Updated
Code Source:Local Machine
Method: gCloud
Cloud Function Updated
Code Source:Cloud Storage
Method: gCloud
Cloud Function Updated
Code Source:Cloud Repo
Method: gCloud
Cloud Function Deployed
Code Source:Local Machine
Method: gCloud
Cloud Function Deployed
Code Source:Cloud Storage
Method: gCloud
Cloud Function Deployed
Code Source:Cloud Repo
Method: gCloud
Cloud Function Deployed
Code Source:Local Machine
Method: Cloud Function API
Cloud Function Deployed
Code Source:Cloud Storage
Method: Cloud Function API
Cloud Function Deployed
Code Source:Cloud Repo
Method: Cloud Function API
Cloud Function Updated
Code Source:Local Machine
Method: Cloud Function API
Cloud Function Updated
Code Source:Cloud Storage
Method: Cloud Function API
Cloud Function Updated
Code Source:Cloud Repo
Method: Cloud Function API
[Optional]
[Optional]
[Optional]
[Optional]
[Optional]
[Optional]
cloudfunctions.functions.setIamPolicy
cloudfunctions.functions.getIamPolicy
cloudfunctions.functions.setIamPolicy
IAM Policy Binded
Method: gCloud
IAM Policy Binded
Method: Cloud Function API
Cloud Function can now be Invoked
access_token
PRIVILEGE ESCALATION