Upgrading Firebase Function from Beta Version

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Background (Non-HTTP) Functions

```javascript
exports.dbWrite =
functions.database.
.ref('/path/with/{id}')
.onWrite((data, context) => {
  const authVar = context.auth;
  const authType =
  context.authType;
  const pathId =
  context.params.id;
  const eventId = context.eventId;
  const timestamp =
  context.timestamp;
  const eventType =
```

◄ Auth information for the user

◄ Permissions level for the user

◄ The ID in the Path

◄ A unique event ID

◄ The timestamp at which the event happened

◄ The type of the event that triggered this function

◄ The resource which triggered the event

firebase-admin Initialization Syntax

```javascript
const functions = require('firebase-functions');
const admin = require('firebase-admin');
admin.initializeApp(functions.config().firebase);


const functions = require('firebase-functions');
const admin = require('firebase-admin');
admin.initializeApp();
```

functions.config().firebase

SDK Changes by Trigger Type

Realtime Database

```
exports.dbWrite = functions.database.ref('/path')
                           .onWrite((event) => {
  const beforeData = event.data.previous.val();
  const afterData = event.data.val();
});

exports.dbWrite = functions.database.ref('/path')
                           .onWrite((change, context) => {
  const beforeData = change.before.val();
  const afterData = change.after.val();
});
```

Cloud Firestore

```
exports.dbWrite = functions.firestore.document('/path')
                        .onWrite((event) => {
  const beforeData = event.data.previous.data();
  const afterData = event.data.data();
});

exports.dbWrite = functions.firestore.document('/path')
                        .onWrite((change, context) => {
  const beforeData = change.before.data();
  const afterData = change.after.data();
});
```

Authentication

```
exports.authA = functions.auth.user()
                          .onCreate((event) => {
  const userMetadata = event.data.metadata;
  const created = userMetadata.createdAt;
  const signedIn = userMetadata.lastSignedInAt;
}

exports.authA = functions.auth.user()
                          .onCreate((userRecord, context) => {
  const created = userRecord.metadata.creationTime;
  const signedIn = userRecord.metadata.lastSignInTime;
}
```

The **onChange** event handler has been removed from Cloud Storage

Functions Emulations

`firebase serve` serves both **HTTP functions** and **hosting** by default

firebase experimental:functions:shell

firebase functions:shell

Summary

Background (Non-HTTP) Functions

- Parameter split

- Initialization syntax

- functions.config()

SDK Changes by Trigger Type

- Realtime Database

- Cloud Firestore

- Authentication

- Storage

Function Emulation