Duplicati Dashboard

Link: https://github.com/fabien-github/duplicati_dashboard?tab=readme-ov-file#demo

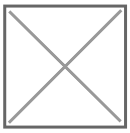
git clone https://github.com/fabien-github/duplicati_dashboard.git

Duplicati Dashboard is a monitoring solution for Duplicati.

It allows you to monitor your backups status, collects stats for each reports and alerts you by email when a backup fails. It is intended to be self-hosted and works with docker-compose.

Everything is already pre-configured and ready to be deployed.

Demo



> The right side of the video is not integrated in the dashboard. You can't control your backup with it.

Quick Start

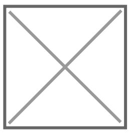
Running with docker-compose

```
git clone https://github.com/fabien-github/duplicati_dashboard.git
cd duplicati_dashboard
docker-compose up -d
```

Setup Duplicati

Add theses two options for each backup you want to monitor:

- **send-http-result-output-format:** json
- **send-http-url:** http://localhost:8080



> This assumes that your Duplicati instance is on the same host as your Duplicati Dashboard.

Connect to your dashboard

http://localhost:3000

Login: `admin` Password: `password`

> For email alerting, you need to configure a SMTP relay. See Configuration > Env file

Configuration

Env file

The file `config.env` is used to configure some options. It will be shared between the 3 containers.

Only use this default configuration for testing purposes.

Influxdb variable will create and setup the database only on the first startup.

Variables	Default	Description
DOCKER_INFLUXDB_INIT_MODE	setup	Automatically bootstrap the system
DOCKER_INFLUXDB_INIT_USERNAME	telegraf_user	Influxdb superadmin user
DOCKER_INFLUXDB_INIT_PASSWORD	telegraf_password	Influxdb superadmin password
DOCKER_INFLUXDB_INIT_ORG	telegraf_org	Influxdb Organization (used by influxdb / telegraf / grafana)
DOCKER_INFLUXDB_INIT_BUCKET	telegraf	Influxdb bucket to store reports (used by influxdb / telegraf / grafana)
DOCKER_INFLUXDB_INIT_ADMIN_TOKEN	telegraf_token	Influxdb superadmin token (used by influxdb / telegraf / grafana)
DOCKER_INFLUXDB_INIT_RETENTION		Influxdb data retention, default will retain forever
INFLUXD_REPORTING_DISABLED	false	Disable InfluxData telemetry
TELEGRAF_LISTENER_PORT	8080	Port used by http_listener_v2 input, endpoint for the reports sent by Duplicati
TELEGRAF_LISTENER_PATH	/	Path to listen to
GF_SECURITY_ADMIN_USER	admin	Grafana superadmin user

Variables	Default	Description
GF_SECURITY_ADMIN_PASSWORD	password	Grafana superadmin password
GF_SERVER_ROOT_URL	http://localhost:3000	Grafana URL, used in some templates like email notifications
GF_DASHBOARDS_DEFAULT_HOME_DASHBOARD_PATH	/etc/grafana/provisioning/dashboards/duplicati_dashboard.json	Force Duplicati dashboard by default on home page
GF_SMTP_ENABLED	false	Set to true for email notifications
GF_SMTP_HOST	localhost:25	SMTP relay server. [host]:[port]
GF_SMTP_FROM_NAME	Grafana	Name of the email sender
GF_SMTP_USER		In case of SMTP auth
GF_SMTP_PASSWORD		In case of SMTP auth
GF_SMTP_FROM_ADDRESS	admin@grafana.localhost	Address used when sending out emails
GF_SMTP_EHLO_IDENTITY	${HOSTNAME}	Name to be used as client identity for EHLO in SMTP dialog (Default will be the container ID)
GF_SMTP_STARTTLS_POLICY		“OpportunisticStartTLS”, “MandatoryStartTLS”, “NoStartTLS”
NOTIFIER_EMAIL_RECIPIENT	example@example.com	Recipients for email notification (separated by a semicolon)
NOTIFIER_EMAIL_REMINDER_ENABLE	true	Re-send an email if alerts are still active
NOTIFIER_EMAIL_REMINDER_FREQUENCY	2h	Delay between email reminders

Notes

Grafana configuration locked

The dashboard is locked by the Grafana provisioning system. You can't edit the datasource, the dashboard or the alert notifier from the UI. You will need to copy the dashboard or disable the provisioning configuration.

Dashboard path: `./grafana/provisioning/dashboards/duplicati_dashboard.json`

The idea is to keep the stack easy to deploy for everyone without investing time to learn Grafana configuration.

Feel free to fork the project or directly edit files on your own.

More information here.

Backup over more than 30 days rotation

- Grafana will discover your backups name from the reports but only over the last 90 days. So if your backups are scheduled for more than 90 days, you will need to edit the request of the variable `Backup` in the dashboard configuration:

```
from(bucket: v.defaultBucket)
  |> range(start: -90d)
  |> filter(fn: (r) => true)
  |> toString()
  |> group(columns: ["backup-name"])
  |> distinct(column: "backup-name")
  |> keep(columns: ["_value"])
```

- Last reported status / Last reported variations / Alerting graph are based over the past 30 days. You will need to adapt each panel requests if your backups are scheduled over more than 30 days.

```
import "influxdata/influxdb/schema"

from(bucket: v.defaultBucket)
  |> range(start: -30d)
  ...
```

- In v2, alerts have their own provisioning file and query range can be edited here.

Alerting graph

The section "Alerting graph" is only used to trigger an alert when a backup fails. This is due to the lack of grafana alert support on other panel type. #6983

Backups status will be checked every minutes. An alert will be triggered after a pending status of 10min. Same delays are used on the recovery.

Warning reports don't trigger an alert.

Deleting removed backup data

After getting inside the influxdb container:

```
influx delete \
  --org telegraf_org \
  --bucket telegraf \
  --token "telegraf_token" \
  --start 1970-01-01T00:00:00Z \
  --stop $(date +"%Y-%m-%dT%H:%M:%SZ") \
  --predicate '_measurement="duplicati" AND "backup-name"="backup_to_delete"'
```

Docker-compose

- **Telegraf**: Receive JSON reports from Duplicati.
- **Influxdb**: Store reports converted by Telegraf.
- **Grafana**: Requests Influxdb to generate dashboard and alerts.

Telegraf endpoint provides a limited HTTP autentification.
The configuration file is located here : `./telegraf/telegraf.conf`

Feel free to add a proxy like traefik or nginx to protect the stack on an unsecure network. (TLS, IP Restrictions, ...)

Other informations

- Not sure of the scalabilty, requests to the database are not efficients. Timeseries databases are not really adapted for this kind of data. This is mainly due to the nested and uneven json format from the reports and the variation time between reports.
- Features are limited directly by the stack itself. For example, it's nearly impossible to add a managment system for the backups.
- This project has no link with the development of Duplicati and his team.

License

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