CLOUD COMPUTING TENDANCES & OPPORTUNITÉS

MOS 4.4 – NTIC

Moncef EL KARMOUDI

07 février 2020

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PLAN DE LA PRÉSENTATION

I. Introduction au Cloud Computing
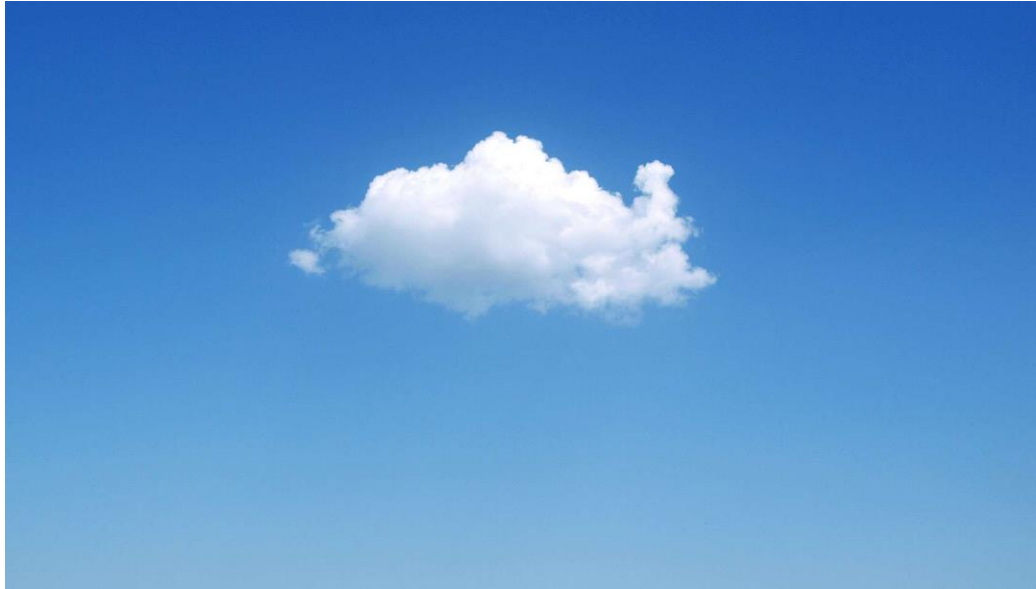
II. Le « Serverless »

III. Méthodes et outils de veille

IV. Conclusion

I. INTRODUCTION AU CLOUD COMPUTING

INTRODUCTION AU CLOUD COMPUTING
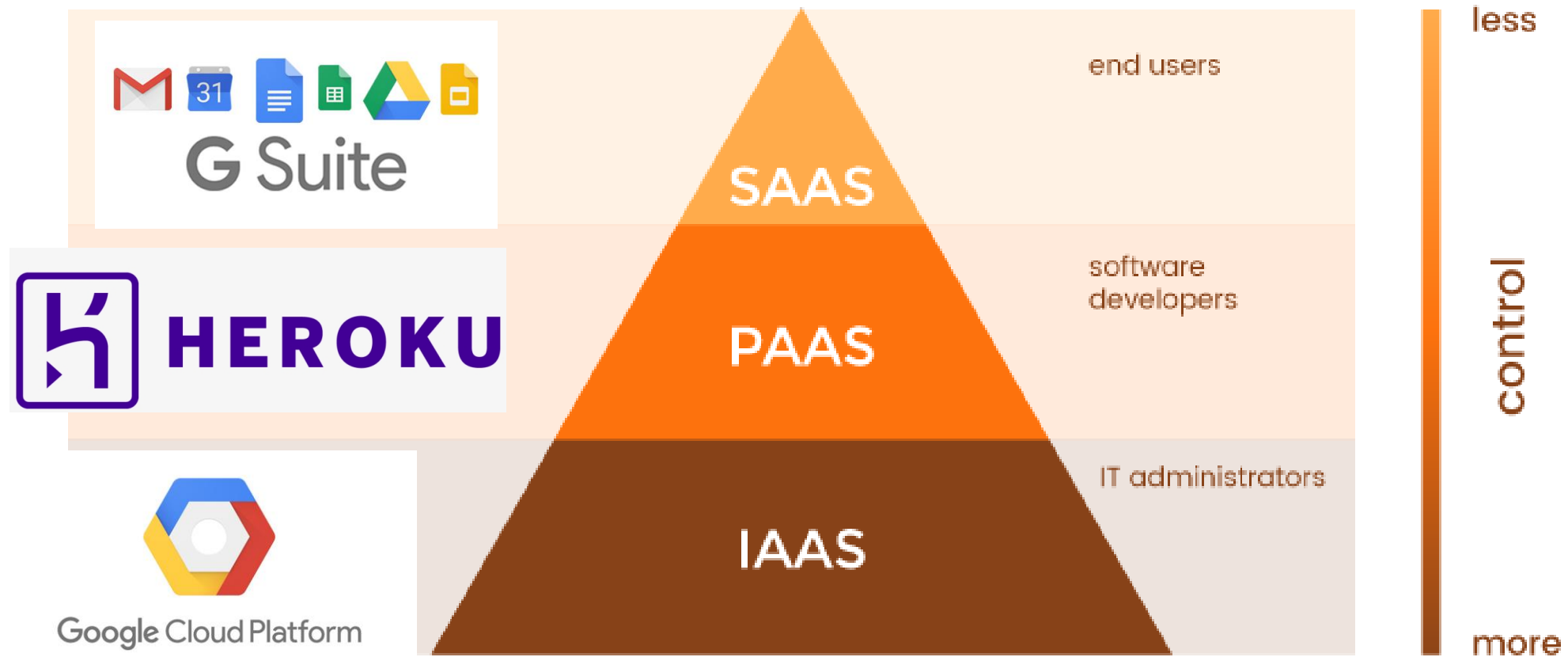

Expectation

Reality

CARACTÉRISTIQUES D'UN SERVICE CLOUD

1. Service à la demande (performance)

2. Service mesurable (facturation)

3. Mutualisation des ressources (partage)

4. Elasticité des ressources (montée de charge)

INFRASTRUCTURE / PLATFORM / SOFTWARE AS A SERVICE

Source : RubyGarage

II. LE SERVERLESS

MODÈLE DE CLOUD COMPUTING

Serverless
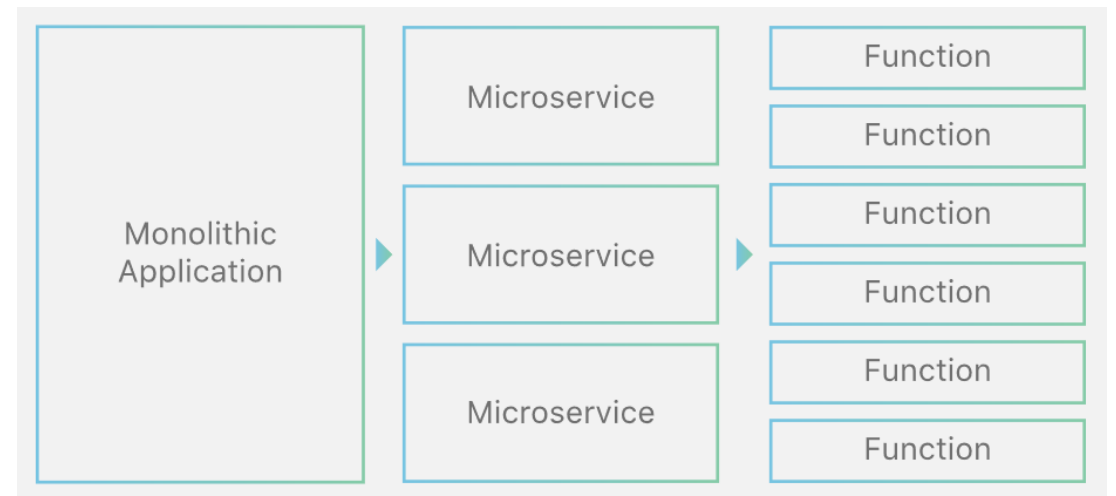
≠ « Sans serveur »

= « Sans se soucier du serveur »

In this animation, Network World explains some of the concepts of serverless computing, and how it represents the next phase of cloud computing for Internet of Things applications and products.

[Serverless explainer: The next generation of cloud infrastructure](), NETWORK WORLD

FUNCTION AS A SERVICE - FAAS

FaaS (Function-as-a-Service) permet l'exécution de code en réponse à des évenements sans infrastructure complexe typiquement associée aux applications reposant sur une architecture microservices.
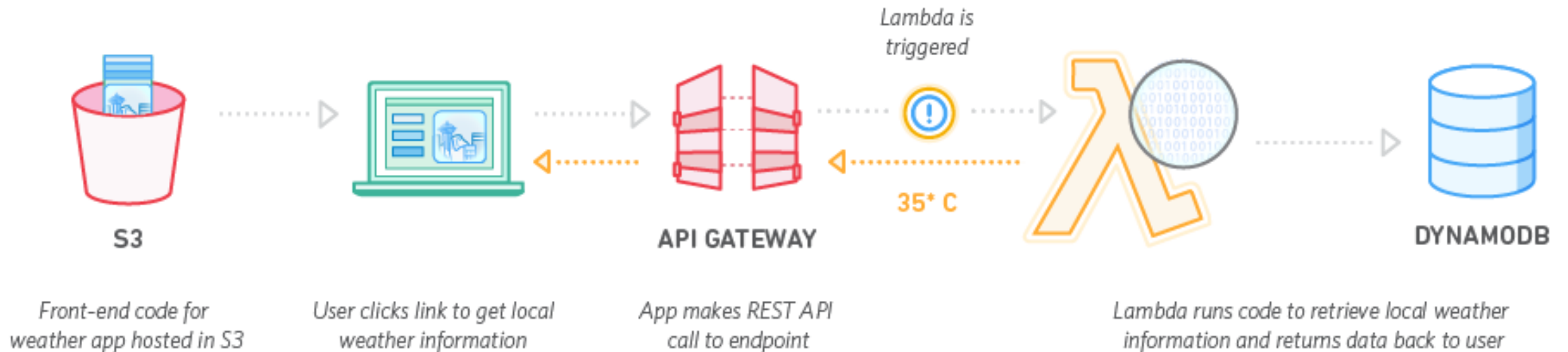
[**What is FaaS (Function-as-a-Service)?**, IBM Cloud]

Source : CloudFlare

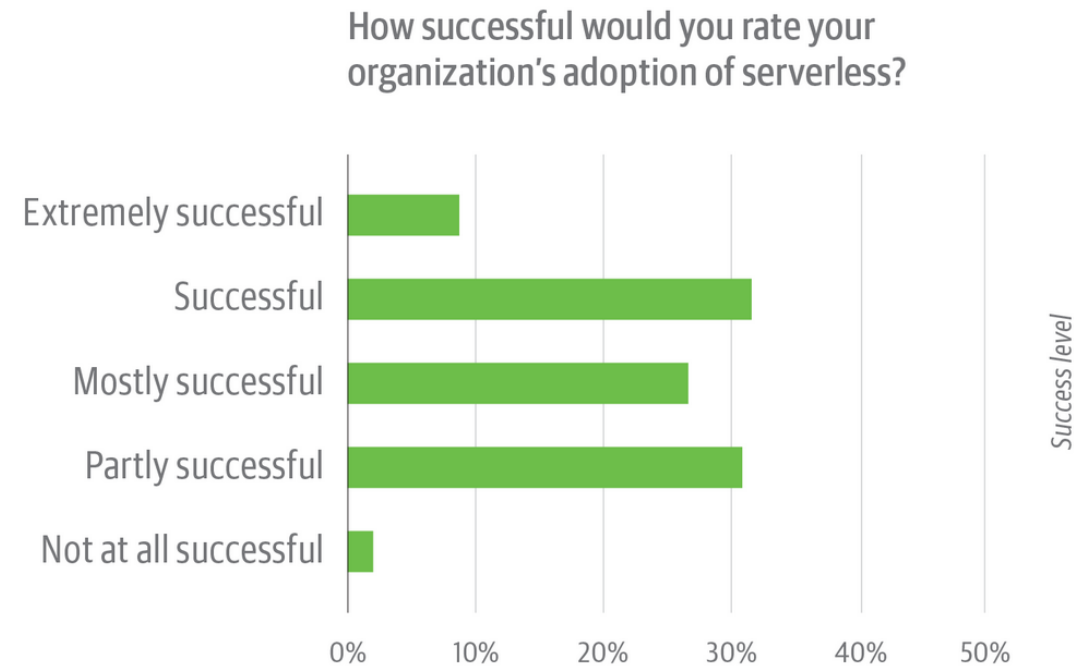# EXEMPLE D'ARCHITECTURE — AWS LAMBDA

Example: *Weather Application*

S3 — Front-end code for weather app hosted in S3

User clicks link to get local weather information

API GATEWAY — App makes REST API call to endpoint

Lambda is triggered

35° C

Lambda runs code to retrieve local weather information and returns data back to user

DYNAMODB

Source : AWS Lambda

AVANTAGES

➤ réduction des coûts d'exploitation ('pay-as-you-go')

➤ mise à l'échelle automatique

➤ absence de problèmes liés aux maintenances de serveur

➤ augmentation de la productivité des développeurs (déploiement rapide)

DÉFIS

➢ formation du personnel actuel

➢ verrouillage des fournisseurs (portabilité)

➢ difficulté des tests d'intégration/débogage

➢ coûts imprévisibles/variables

➢ sécurité (dépendance du provider)

How successful would you rate your organization's adoption of serverless?

Success level

Extremely successful
Successful
Mostly successful
Partly successful
Not at all successful

0% 10% 20% 30% 40% 50%

Source : O'Reilly

III. MÉTHODES ET OUTILS DE VEILLE

SOURCES & PARTAGE

➢ **Cloud computing : la lourde tendance 2020, le "serverless" progresse,** ZDNet

➢ **Serverless explainer: The next generation of cloud infrastructure,** NETWORK WORLD

➢ **Why use Serverless Computing? | Pros and Cons of Serverless,** CloudFlare

➢ **FaaS (Function-as-a-Service),** IBM Cloud

➢ **O'Reilly serverless survey 2019: Concerns, what works, and what to expect,** O'Reilly

Suivre

Veilleur Cloud
@MosNtic

🗓 A rejoint Twitter en janvier 2020

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3. Cloud Computing news, trend analysis and opinion | Network World

4. Cloud Computing | Latest News, Photos & Videos | WIRED

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from Cloud Computing news, trend analysis and opinion | Network World
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A network of clouds with binary code.

7 best practices for managing a multi-cloud environment

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Gina Rometty IBM

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hyperconverged

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cloud migration

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CONCLUSION

Merci pour votre attention