

LESSONS FOR WHEN YOUR SAAS PROVIDER GOES OUT OF BUSINESS



Chris

Senior Security Engineer
Web Security Team



Raphi

Principal Systems Engineer
Crisis Lead

...and many more!



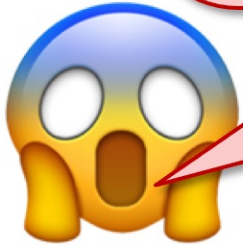
2023-02-02T09:00:00+01:00

PROLOGUE

A ROUTINE THURSDAY MORNING...

2023-02-02T09:15:43+01:00

**Hi Raphi,
I/we need an Incident Manager.
Don't disclose this yet.
HUGE disaster.**



**Product
Manager**

From: *****

Subject: RE: **Important Vendor Company Update**

Date: 1 February 2023 at 17:45:43 CET

From the technical perspective, it means that the systems will continue working automatically, however there is **no personnel left** to attend to them if there is an issue. There is also no FP/FN processing or any other work that requires people. Effectively, we are running on borrowed time now.

This is a bad situation, [...] you should treat it as a "disaster level" scenario.

From: *****
Subject: RE: Important Vendor
Date: 1 February

**This is a bad situation, [...]
you should treat it as a
"disaster level" scenario.**

..., [...] you should treat it
"disaster level" scenario.



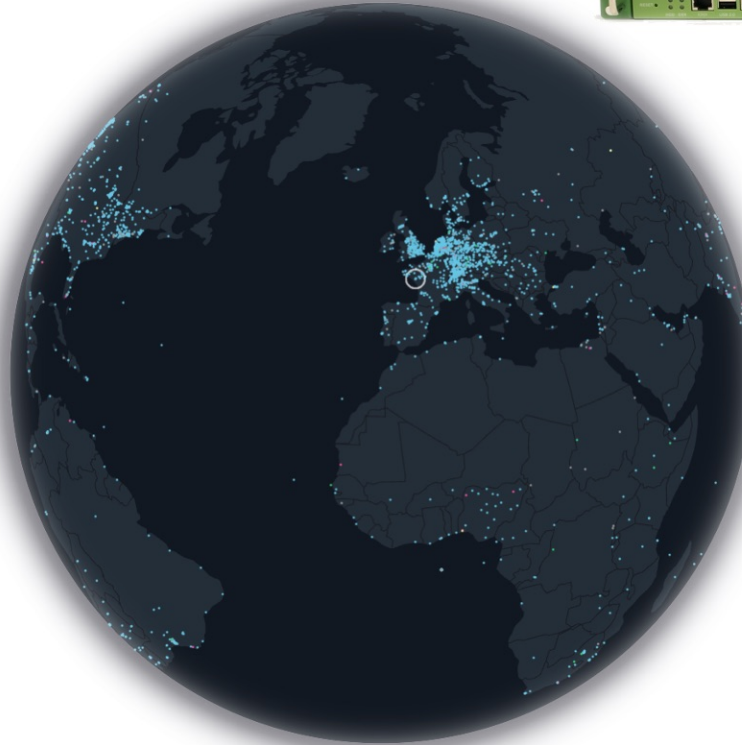
OUR CONTEXT AT
OPEN SYSTEMS

OPEN SYSTEMS IN A NUTSHELL



1990

Open Systems
founded in 



10K

Edge platforms

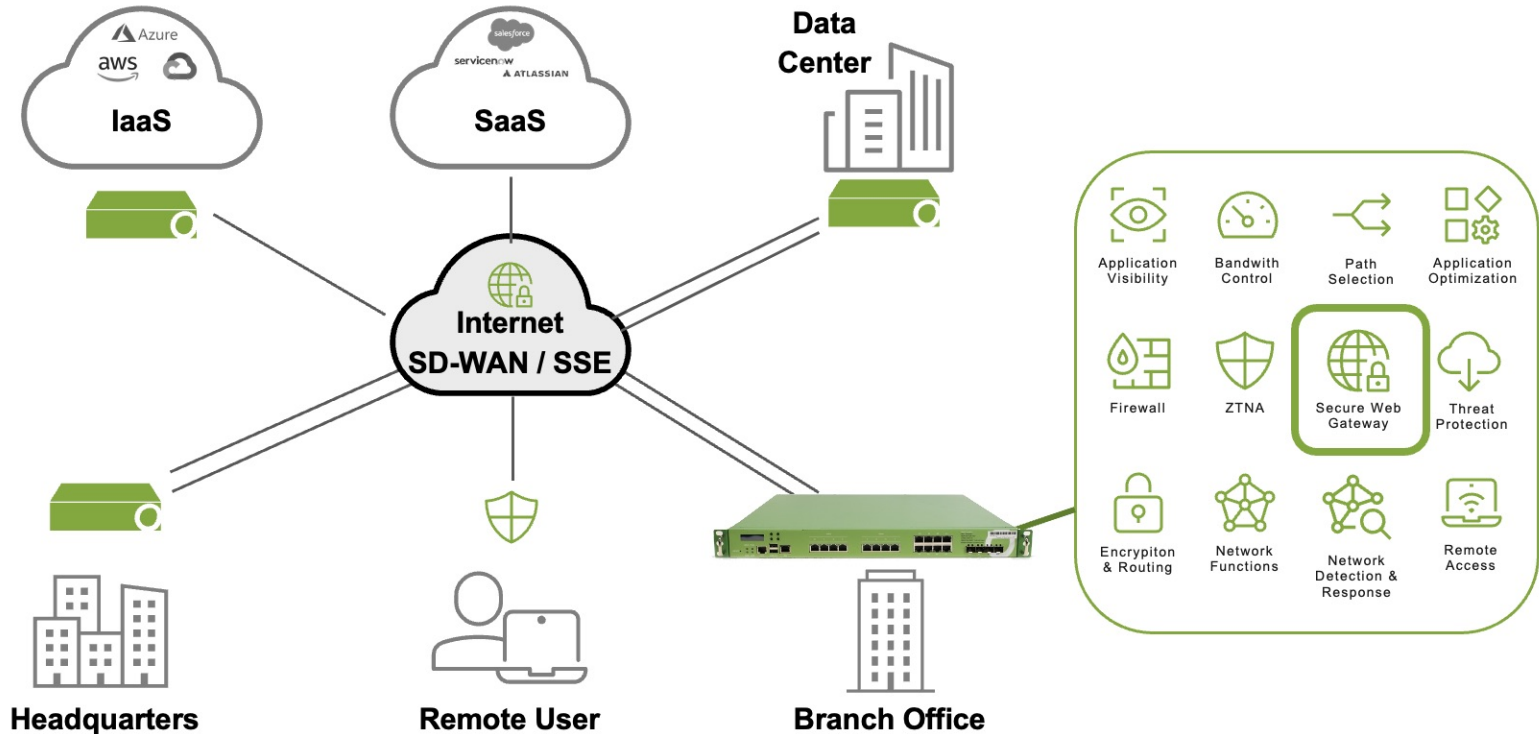
~250

Employees

180+

Countries

OPEN SYSTEMS CONNECTS AND SECURES USERS OF HYBRID ENVIRONMENTS, SEAMLESSLY, SIMPLY AND EFFICIENTLY, WHILE PROTECTING THEM FROM THREATS. 24x7. AROUND THE GLOBE.



MISSION CONTROL – 24x7 OPERATIONS

ZURICH...



& HONOLULU



All engineers contributing part time!



2023-02-02T09:20:00+01:00

FIRST HOURS

Get out of that
chaos phase!

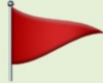


BOOTSTRAP A COORDINATED WELL-LED RESPONSE

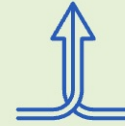
Self



Collaboration



Schedule 1st sitrep



**Comprehend the problem &
assess the situation**



- 1. SUSTAIN OPERATIONS**
- 1. COMMUNICATION**
- 2. NEW SOLUTION**

... AND ACTION – FIRST SITUATION REPORT

2023-02-02T11:30:00+01:00 - CONFIDENTIAL

tl;dr vendor is bankrupt

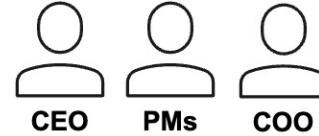
Please cancel any other meetings.
MANDATORY pre-read: https://***

Goal:

- Share new knowledge & align on the current situation
- Plan for the next 6h defined

Agenda:

1. PM, 5min, **Retro & Current situation**
2. IC, 5min, First problem analysis
3. IC, 5min, **Draft Plan for the next 6h**
 1. Tasks for subproblems
 2. Immediate measures
4. Misc & Questions
5. Next situation report

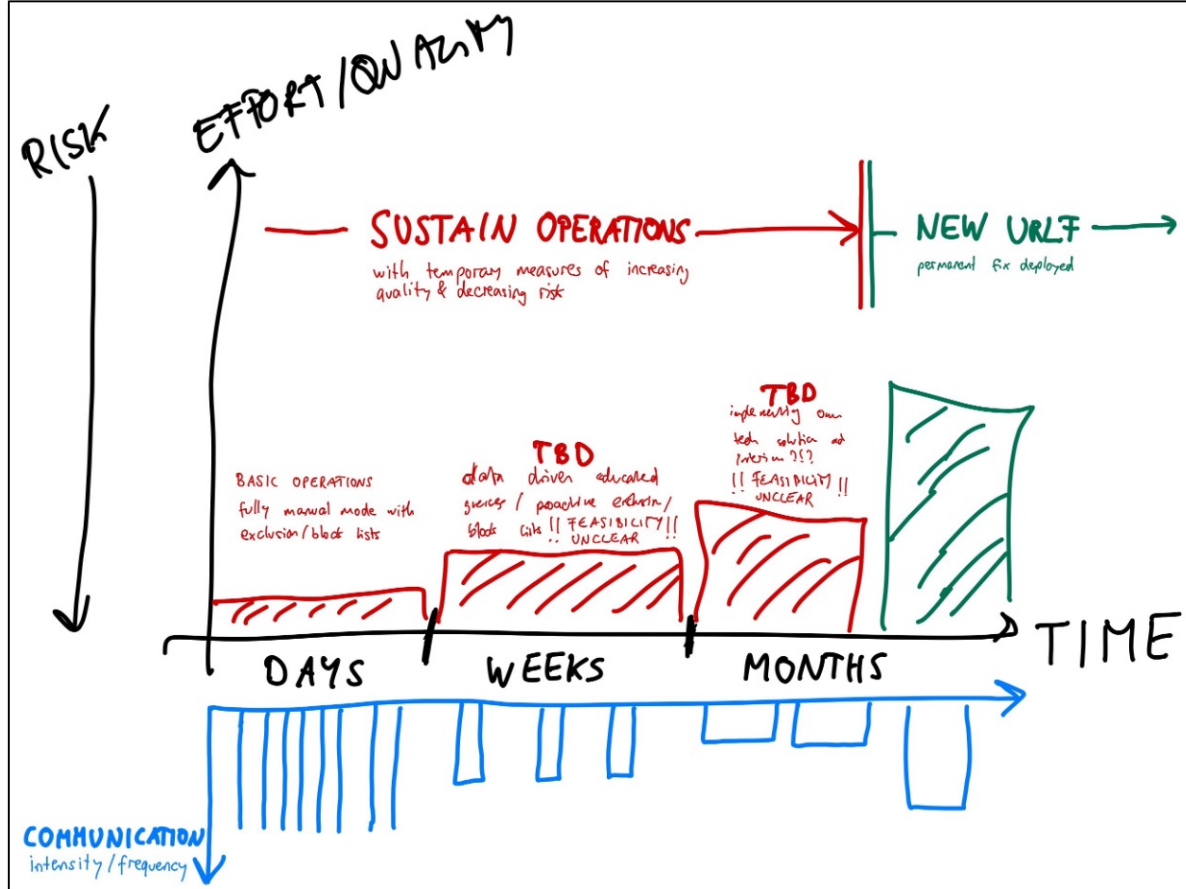




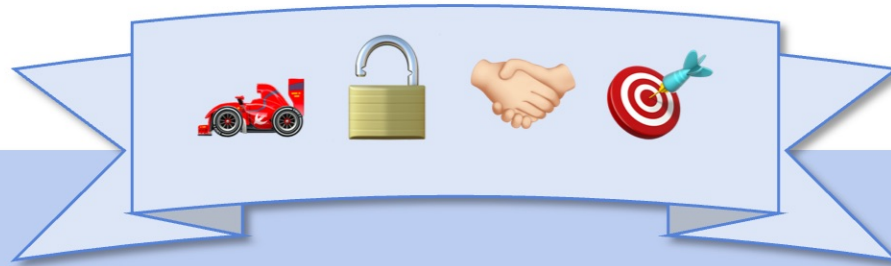
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FIRST DAY

FIRST DAY – THE COMMANDER’S INTENT



FIRST DAY – ESTABLISHING COMMUNICATIONS



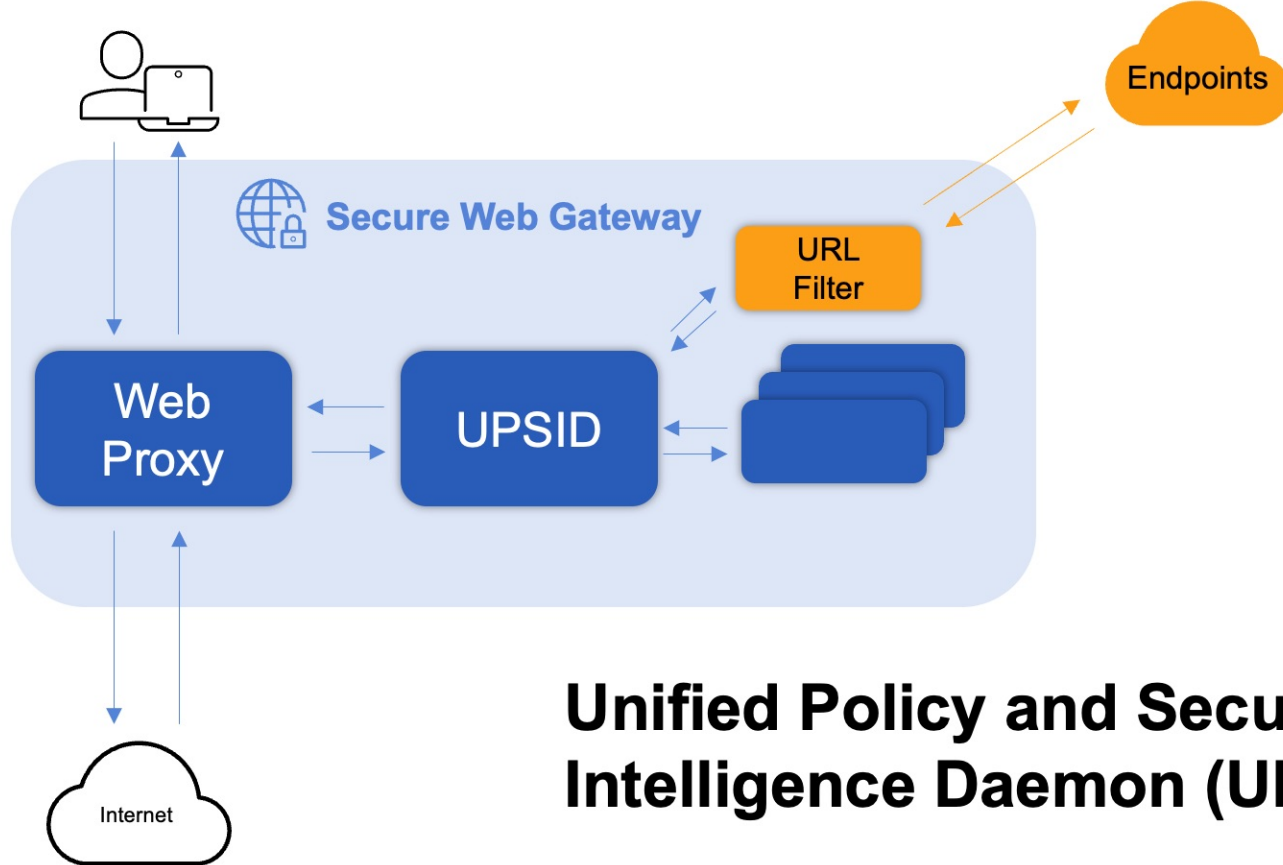
Internal Comms



External Comms



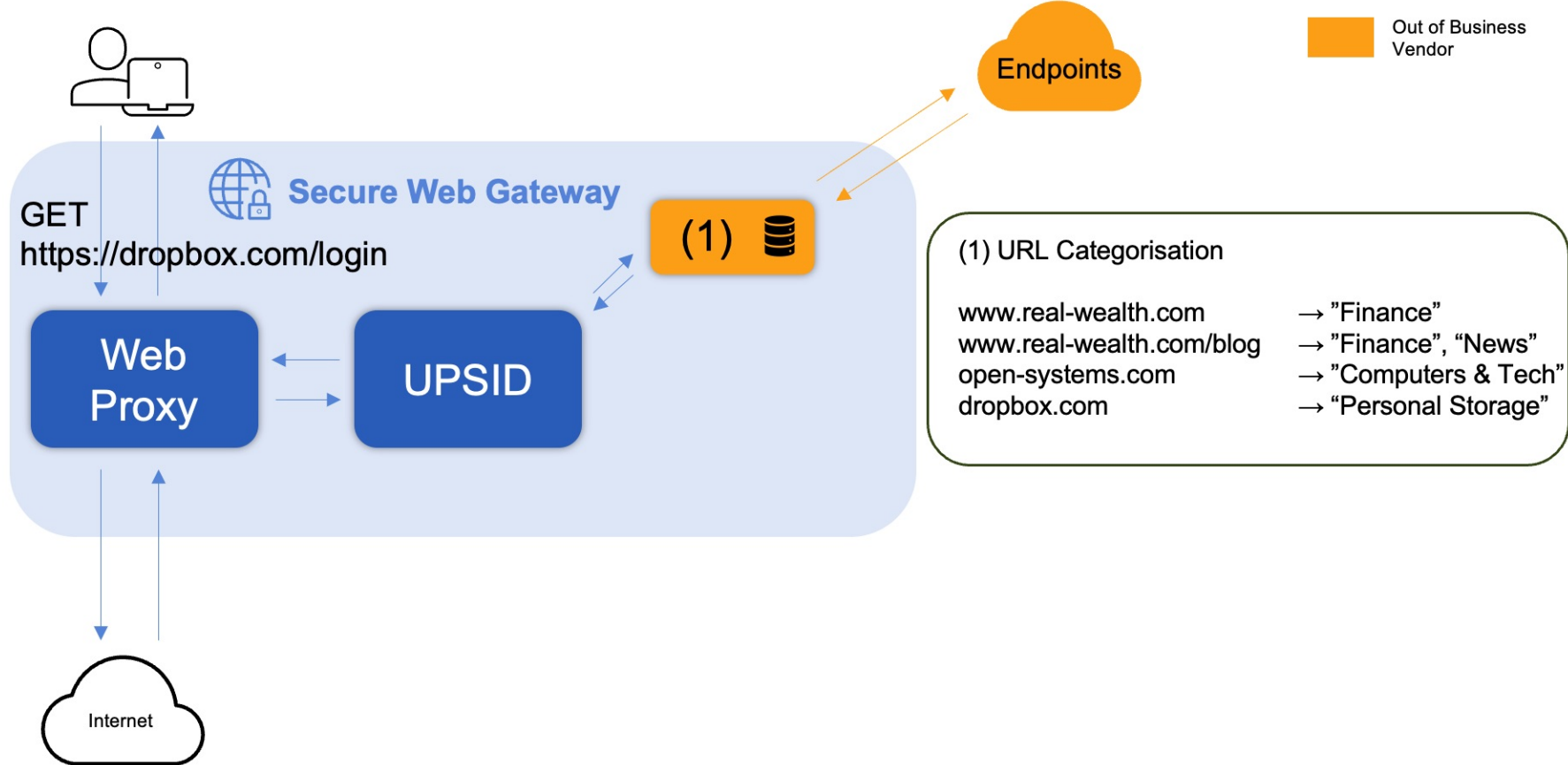
FIRST DAY – HOW DOES THE URL FILTER WORK?



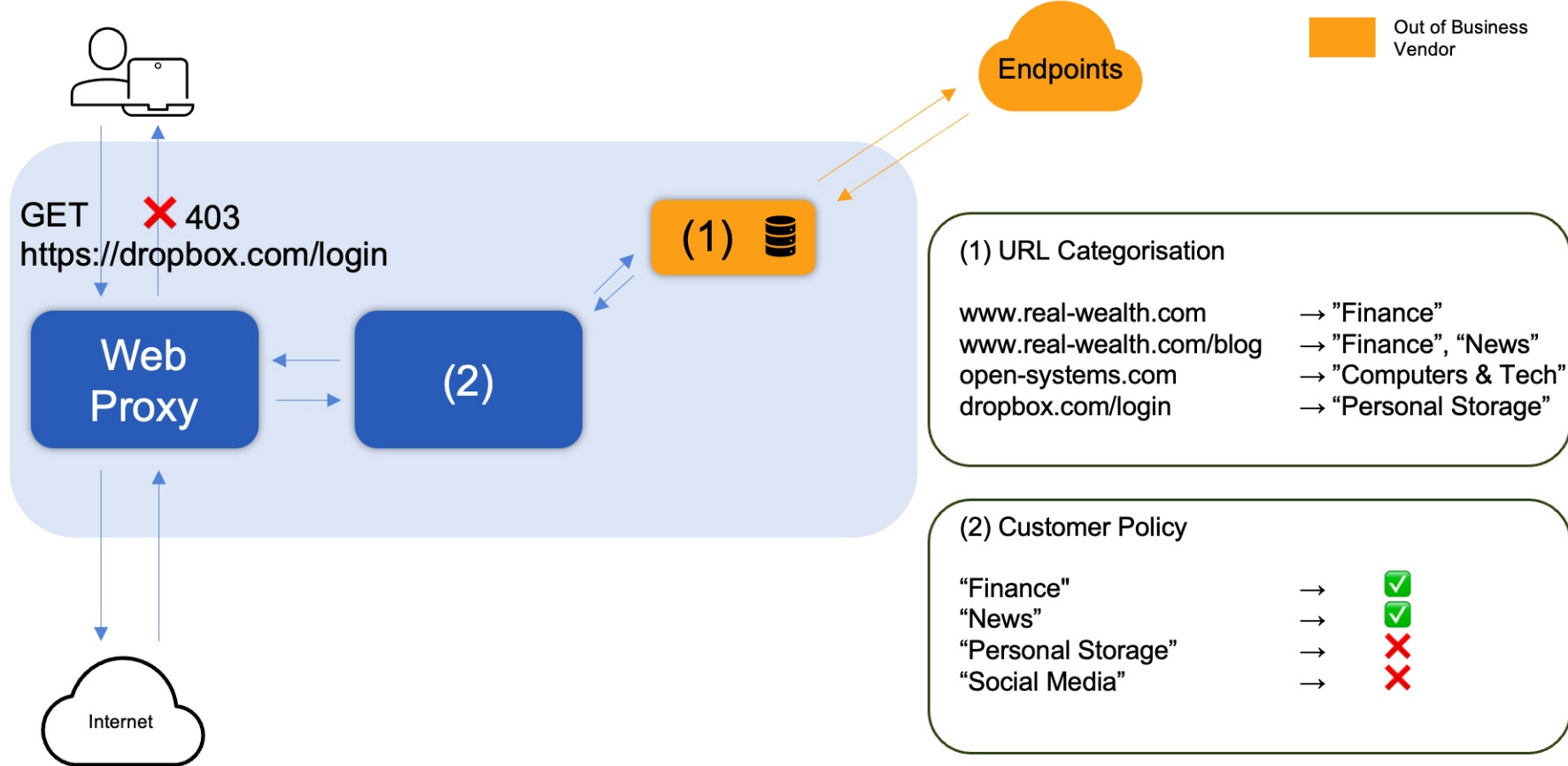
Out of Business Vendor

Unified Policy and Security Intelligence Daemon (UPSID)

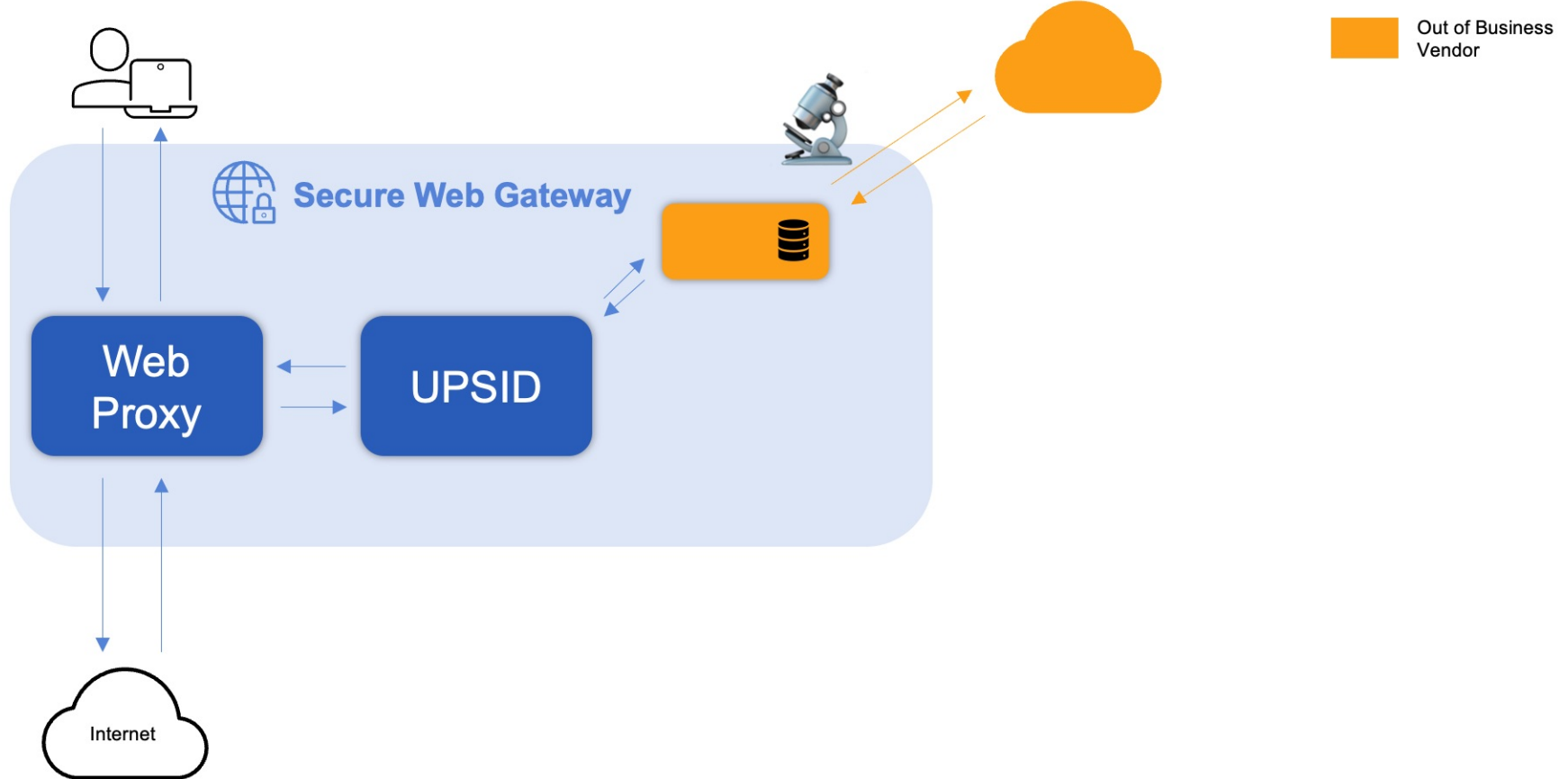
FIRST DAY – HOW DOES THE URL FILTER WORK?



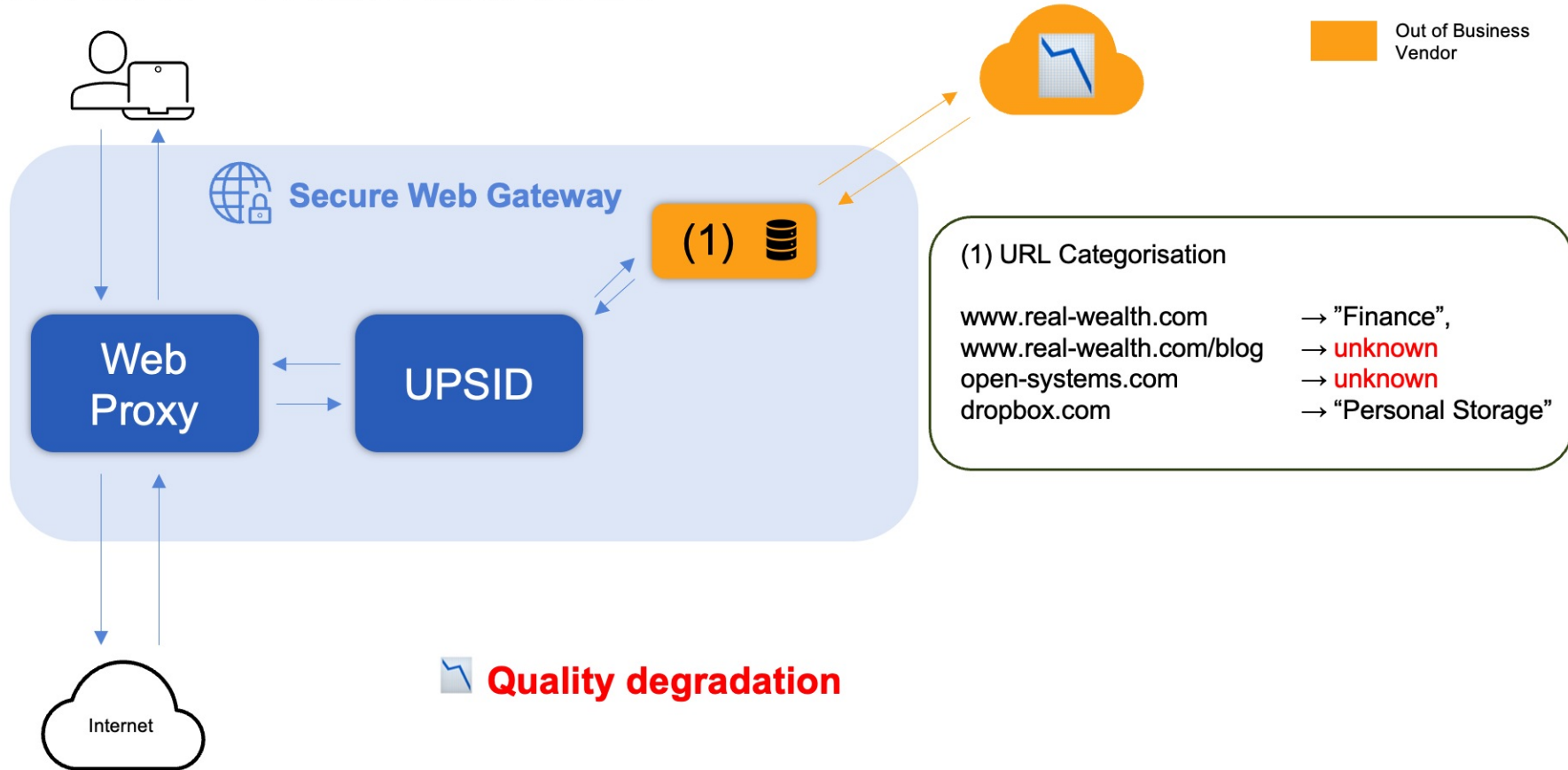
FIRST DAY – HOW DOES THE URL FILTER WORK?



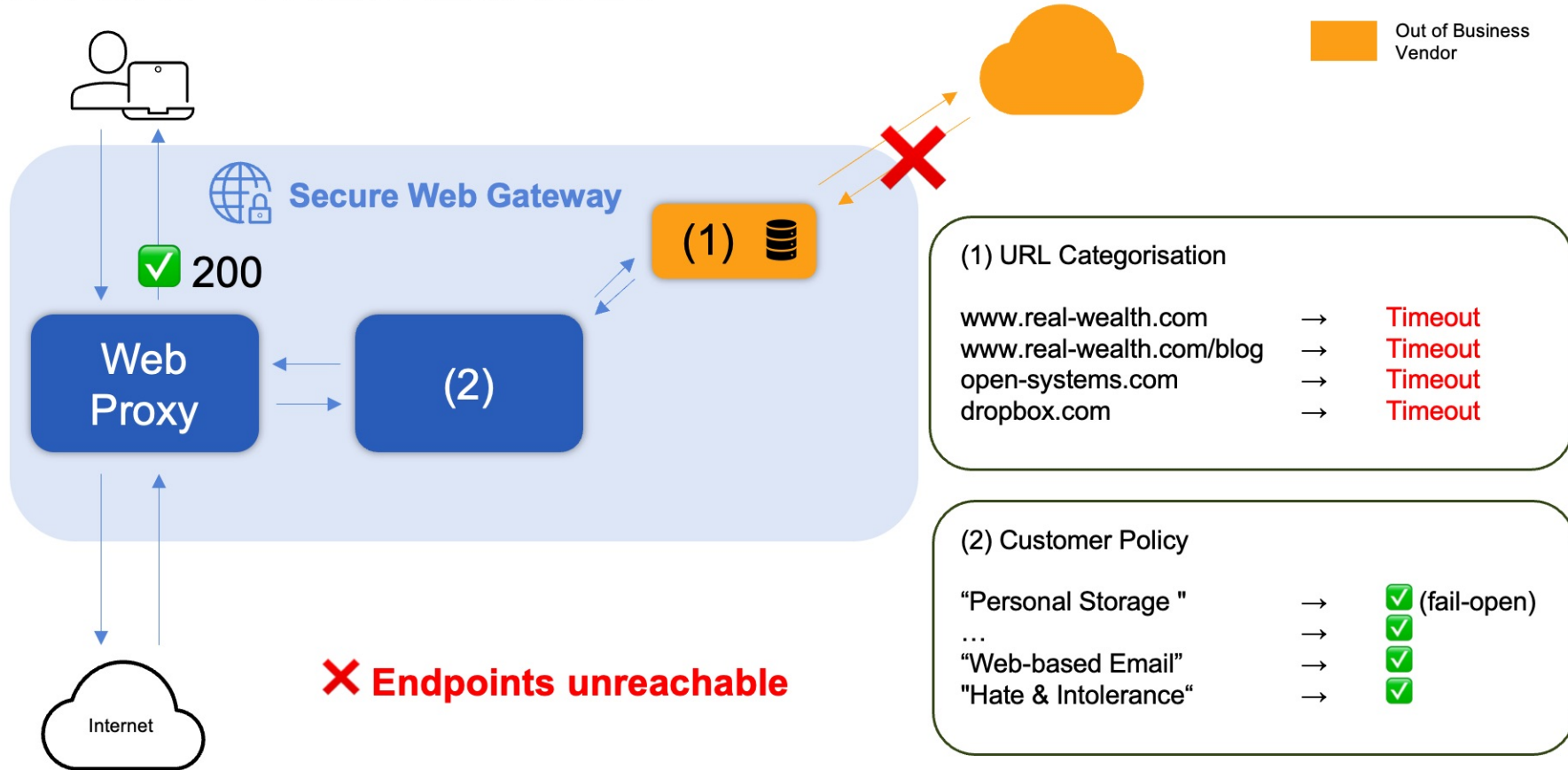
FIRST DAY – FAILURE MODES



FIRST DAY – FAILURE MODES



FIRST DAY – FAILURE MODES



FIRST DAY – OPERATIONS IN MISSION CONTROL

2023-02-02 [REDACTED] Crisis Response

Created by [REDACTED], last modified by Raphael Seebacher on 07.10.2024

INTERNAL USE ONLY

Do not share any of the information below externally

SHTF

SHTF Runbook - [REDACTED] goes down

Table of Contents

- [Incident Response Overview & Status](#)
- [Action Log](#)

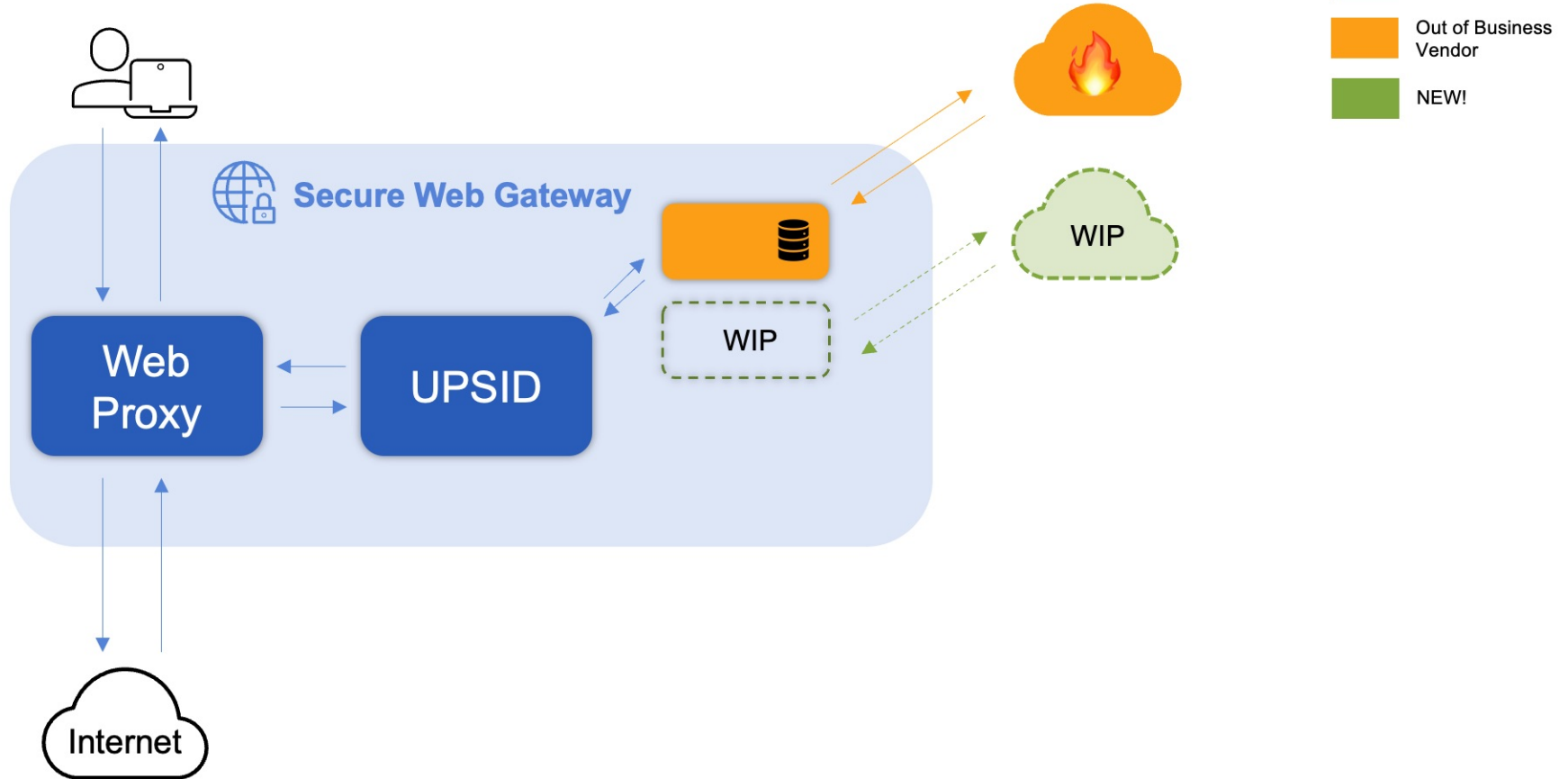
RoB (Rules of Behaviour)

1. Speak up, raise concerns
2. Document what you do
3. Keep ALL communications
4. NO side actions
5. NO panic - stick to the plan
6. Significant change of

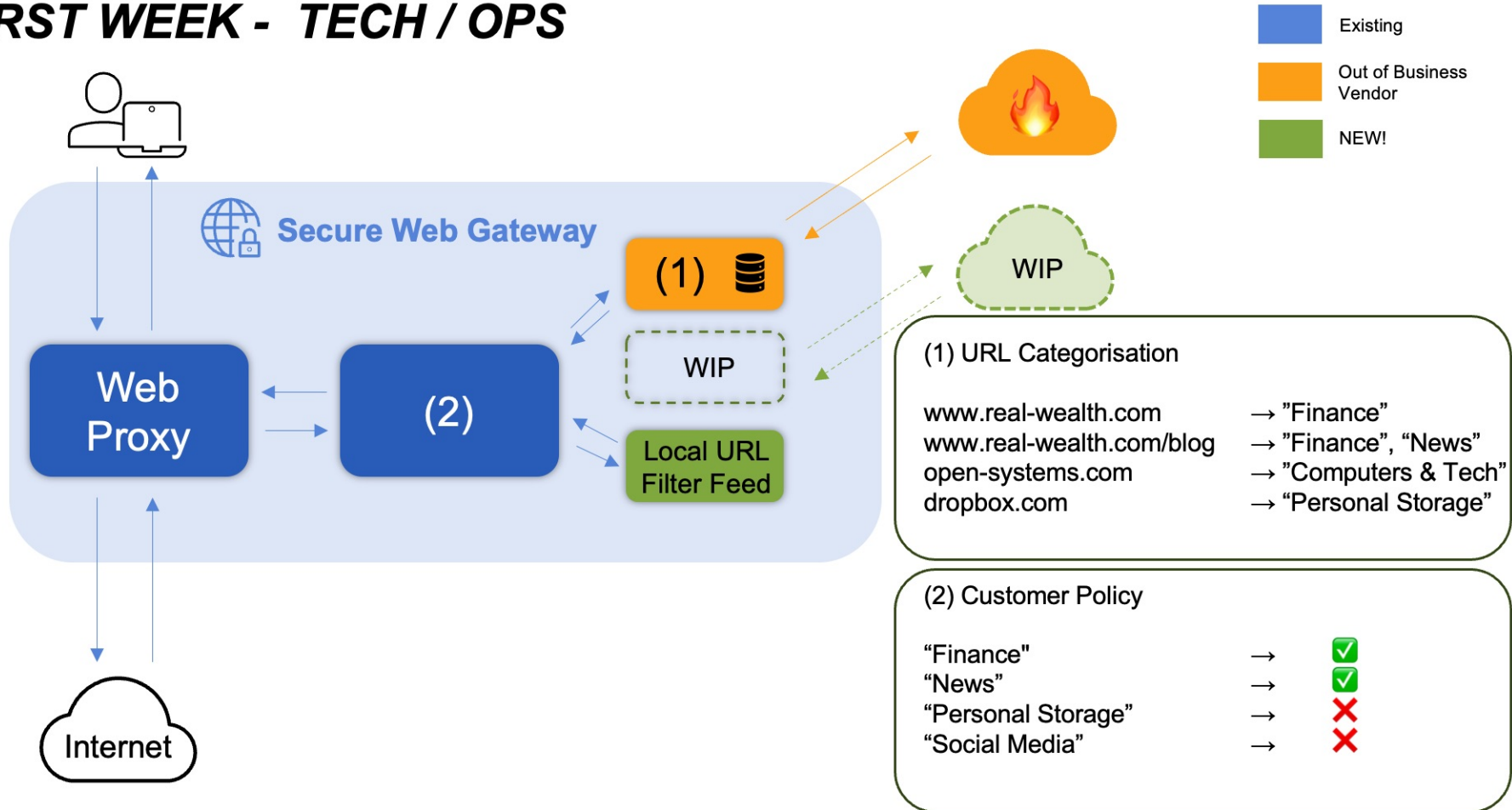


FIRST WEEK

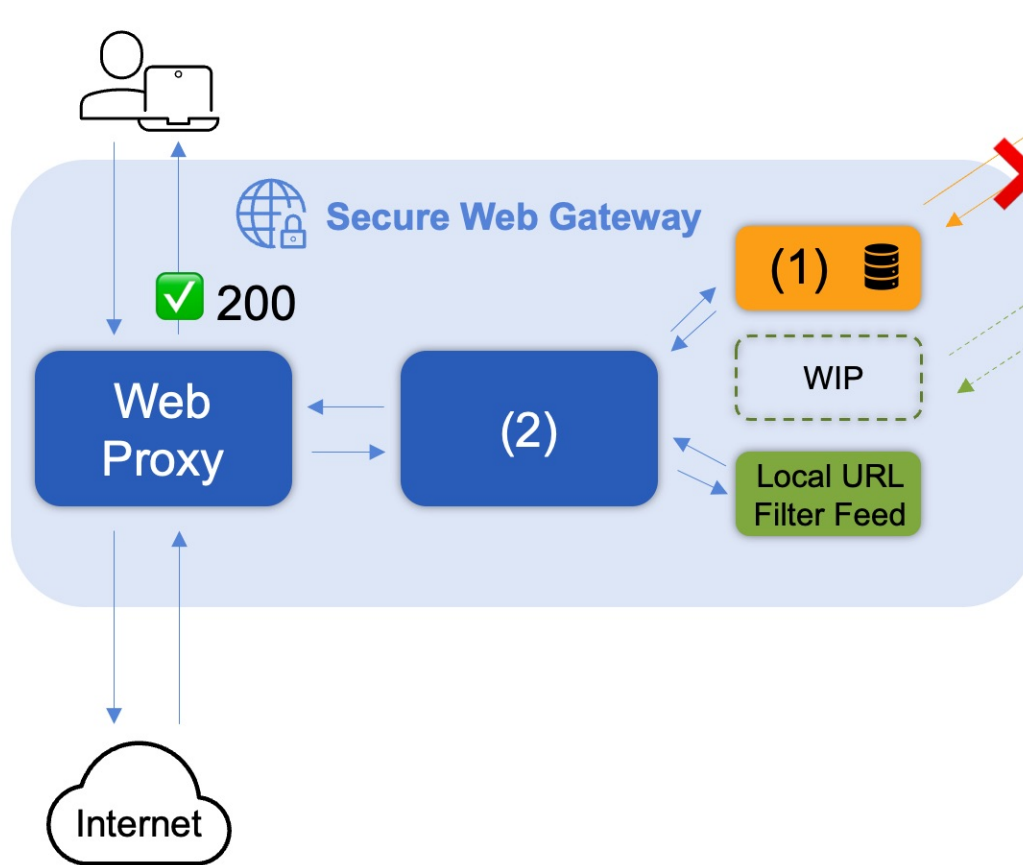
FIRST WEEK - TECH / OPS



FIRST WEEK - TECH / OPS



FIRST WEEK - TECH / OPS



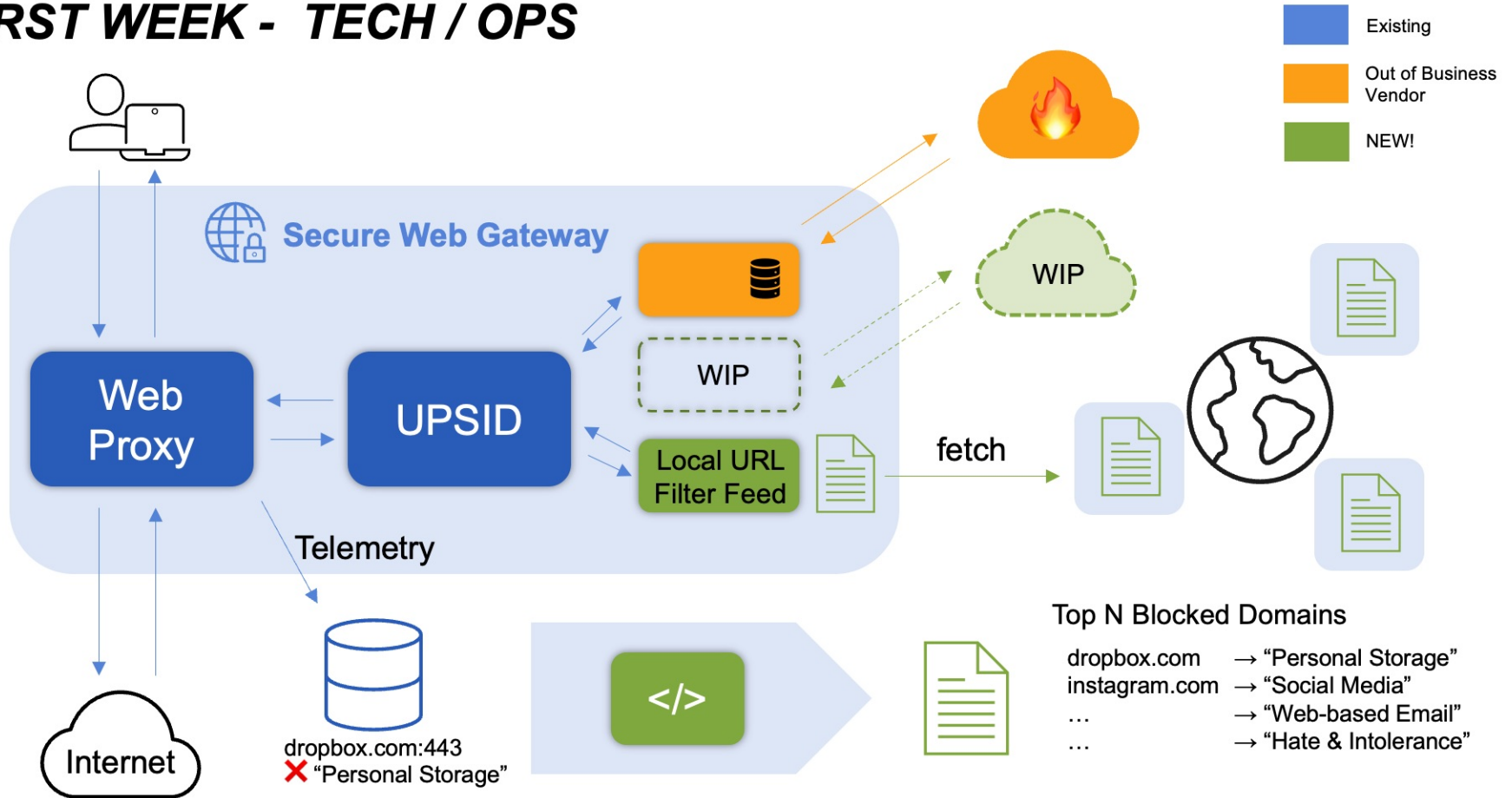
(1) URL Categorisation

www.real-wealth.com	→	Timeout
www.real-wealth.com/blog	→	Timeout
open-systems.com	→	Timeout
dropbox.com	→	Timeout

(2) Customer Policy

"Finance"	→	✓
"News"	→	✓
"Personal Storage"	→	✗ → ✓ fail-open
"Social Media"	→	✗ → ✓

FIRST WEEK - TECH / OPS



FIRST WEEK – COMMUNICATIONS



Internal Comms

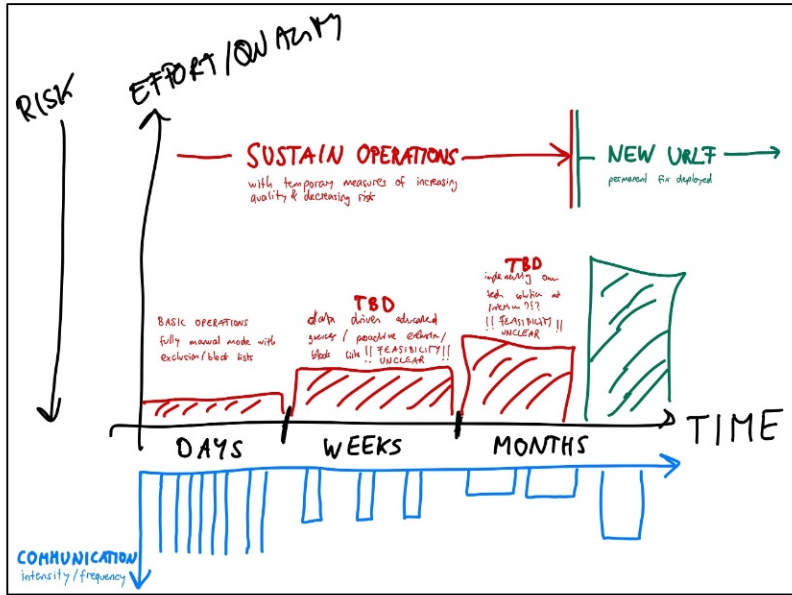


FAQ

External Comms



FIRST WEEK – GETTING INTO THE RHYTHM



FIRST WEEK – RESPONSE WELL UNDER CONTROL...



vendor endpoints unreachable for 15m

mma Feb 8th, 2023 at 03:03

~~false~~ alert outage at 02:43 CET

- `NURSE:URLFILTER:CATEGORIZATION:ERROR` got quarantined (~90 events)
- `upsic -lookup alohasalads.com` returned no categories for ~15 mins
- then everything back to normal, OK events started coming in

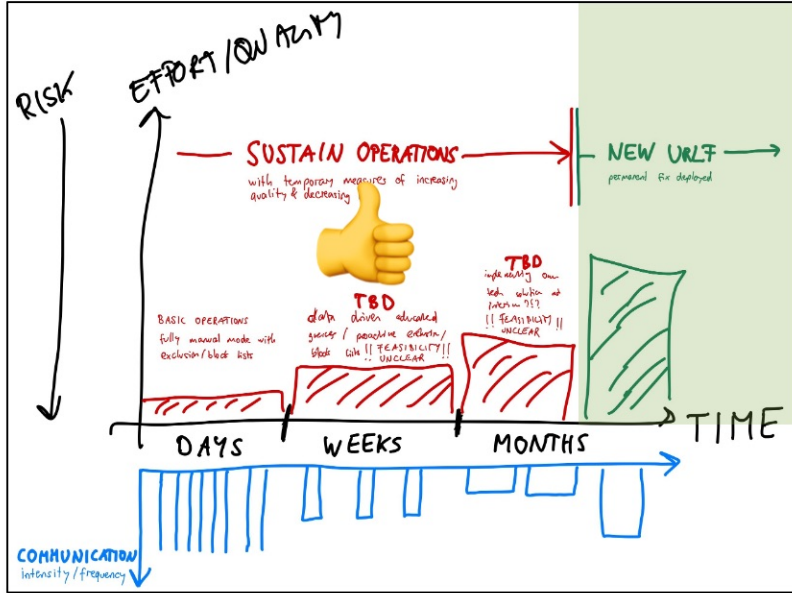
SHTF

SHTF Runbook -  goes down



FIRST MONTH(S)

FIRST MONTH(S) – KEEP GOING DESPITE THE ROUTINE



FIRST MONTH(S) - NEW URL FILTER

Evaluation & Integration

T+1 mo

3 vendors evaluated

T+2 mo

Integrated new vendor

T+3 mo

New Contract Signed

Migration

T+4 mo

First customer migrated

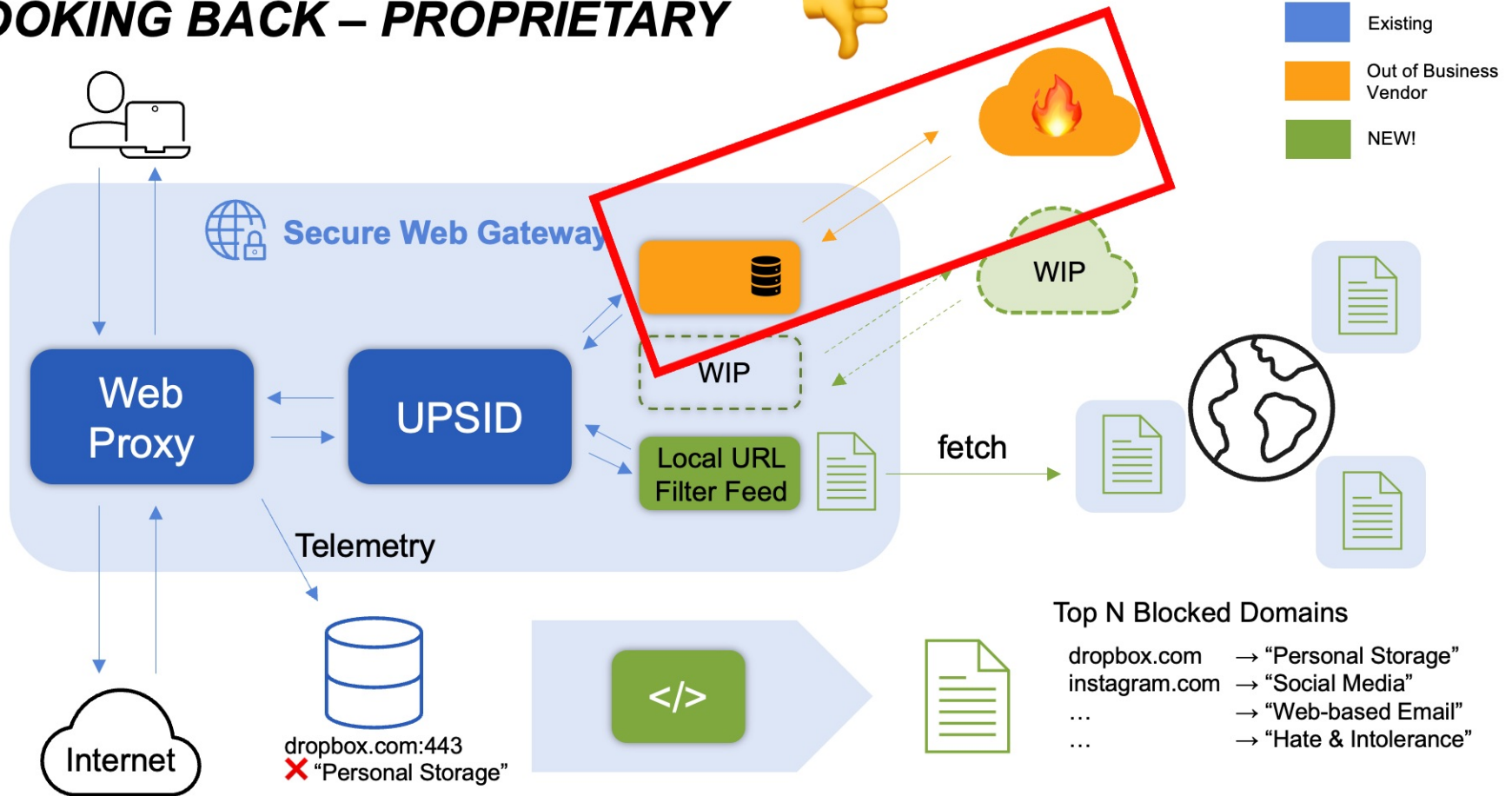
T+7 mo

Last customer migrated

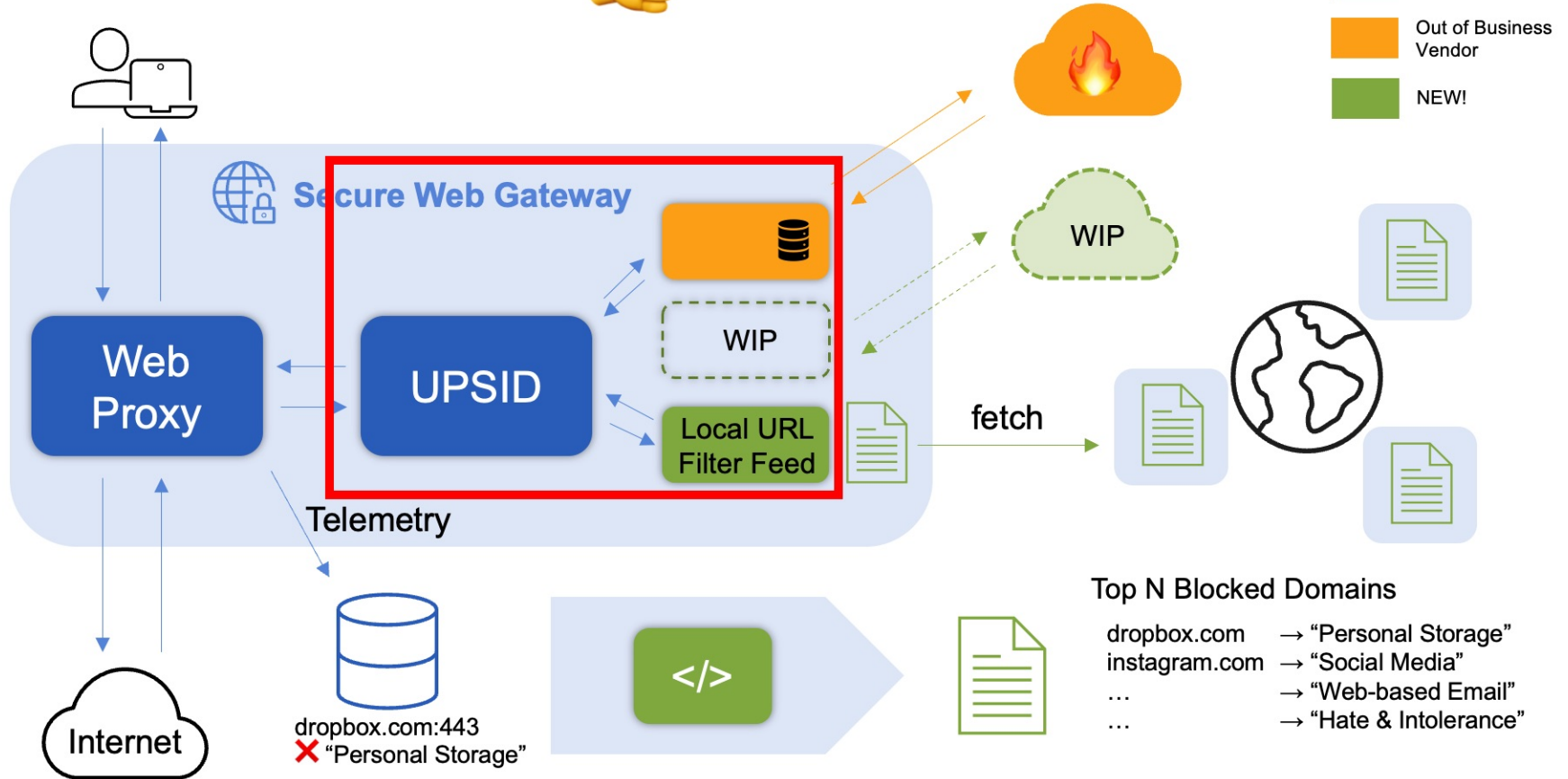


ZOOMING OUT &
LOOKING BACK

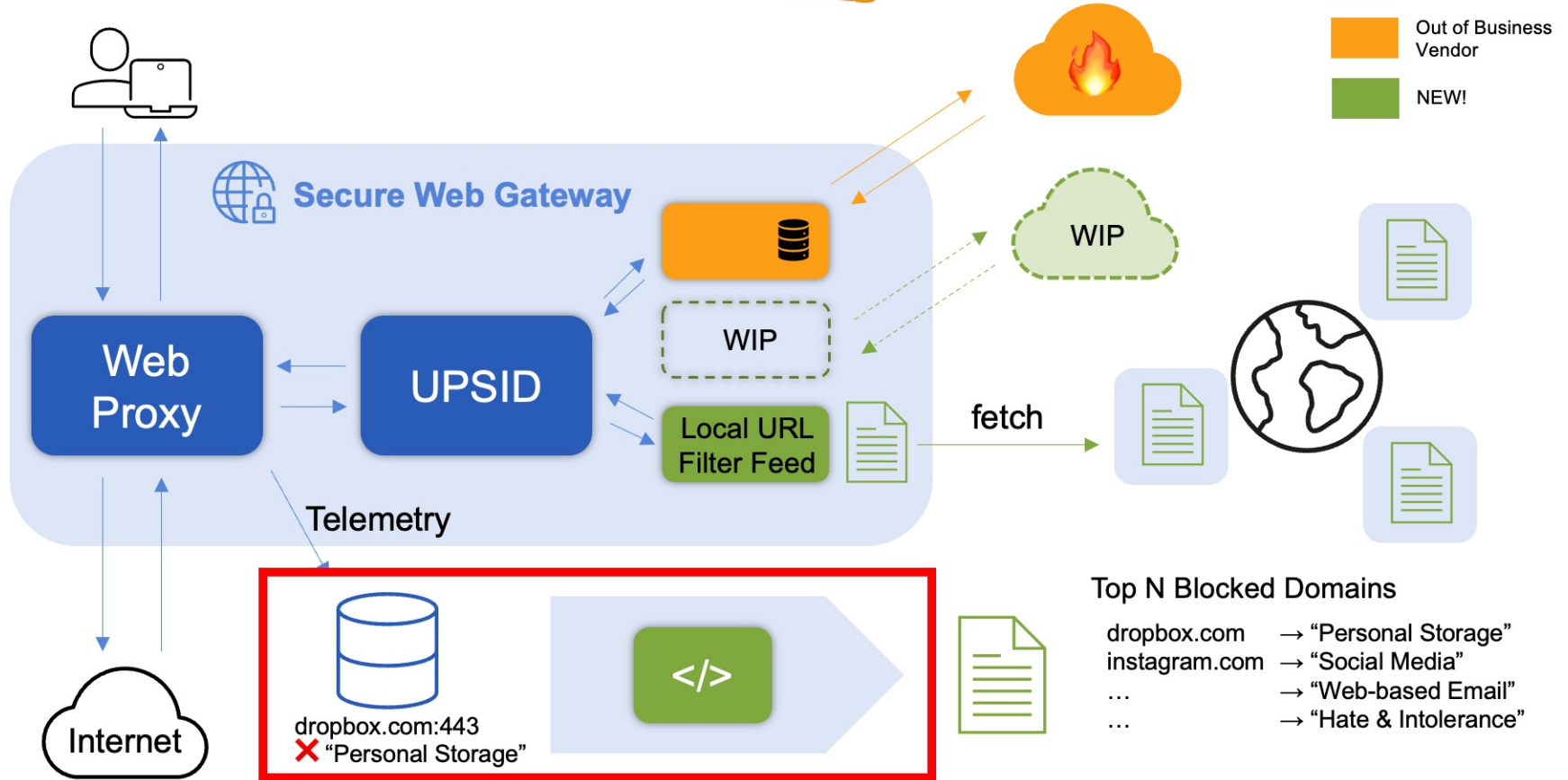
LOOKING BACK – PROPRIETARY



LOOKING BACK - UPSID



LOOKING BACK – TELEMETRY



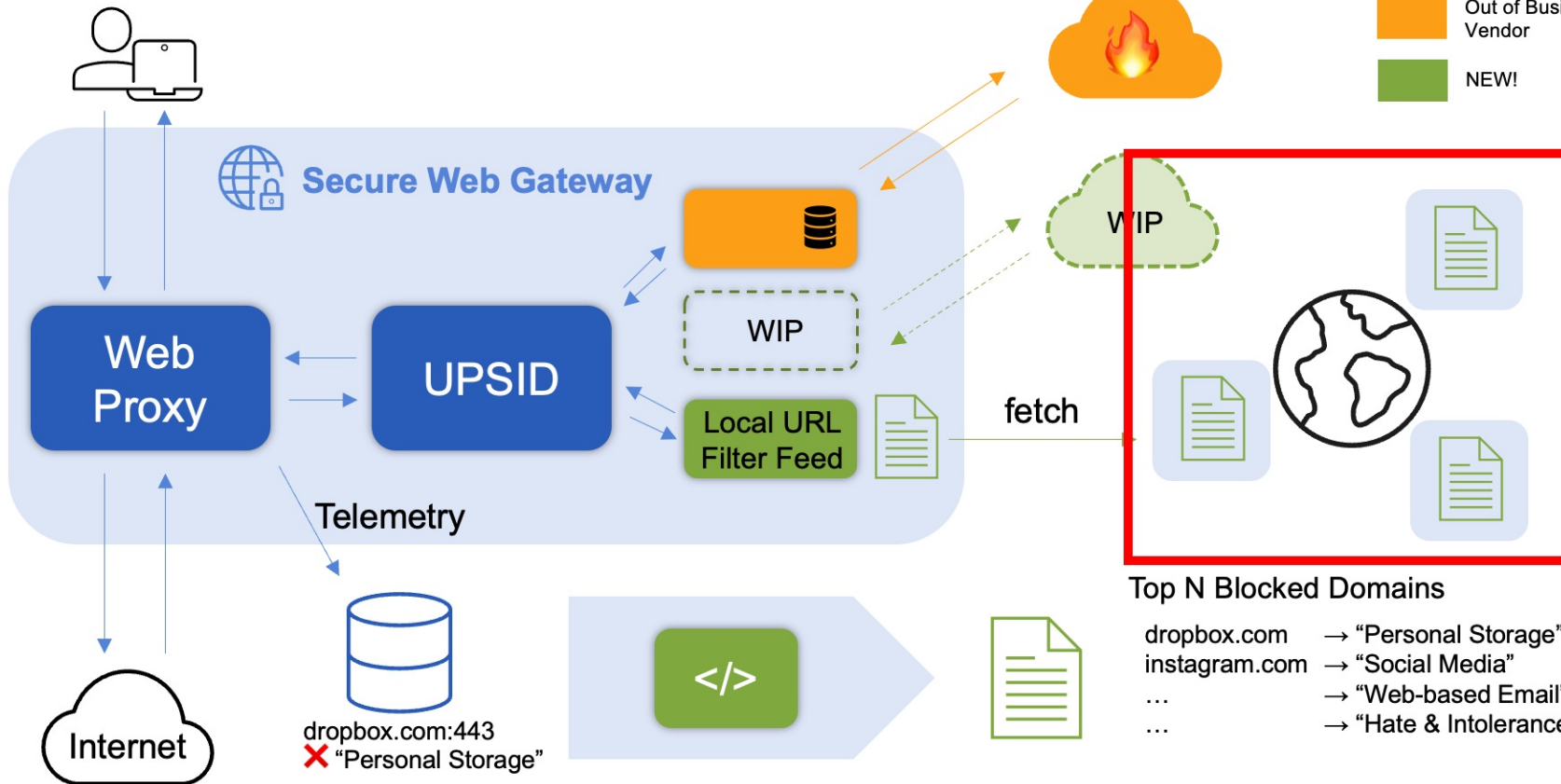
Top N Blocked Domains

- dropbox.com → "Personal Storage"
- instagram.com → "Social Media"
- ... → "Web-based Email"
- ... → "Hate & Intolerance"

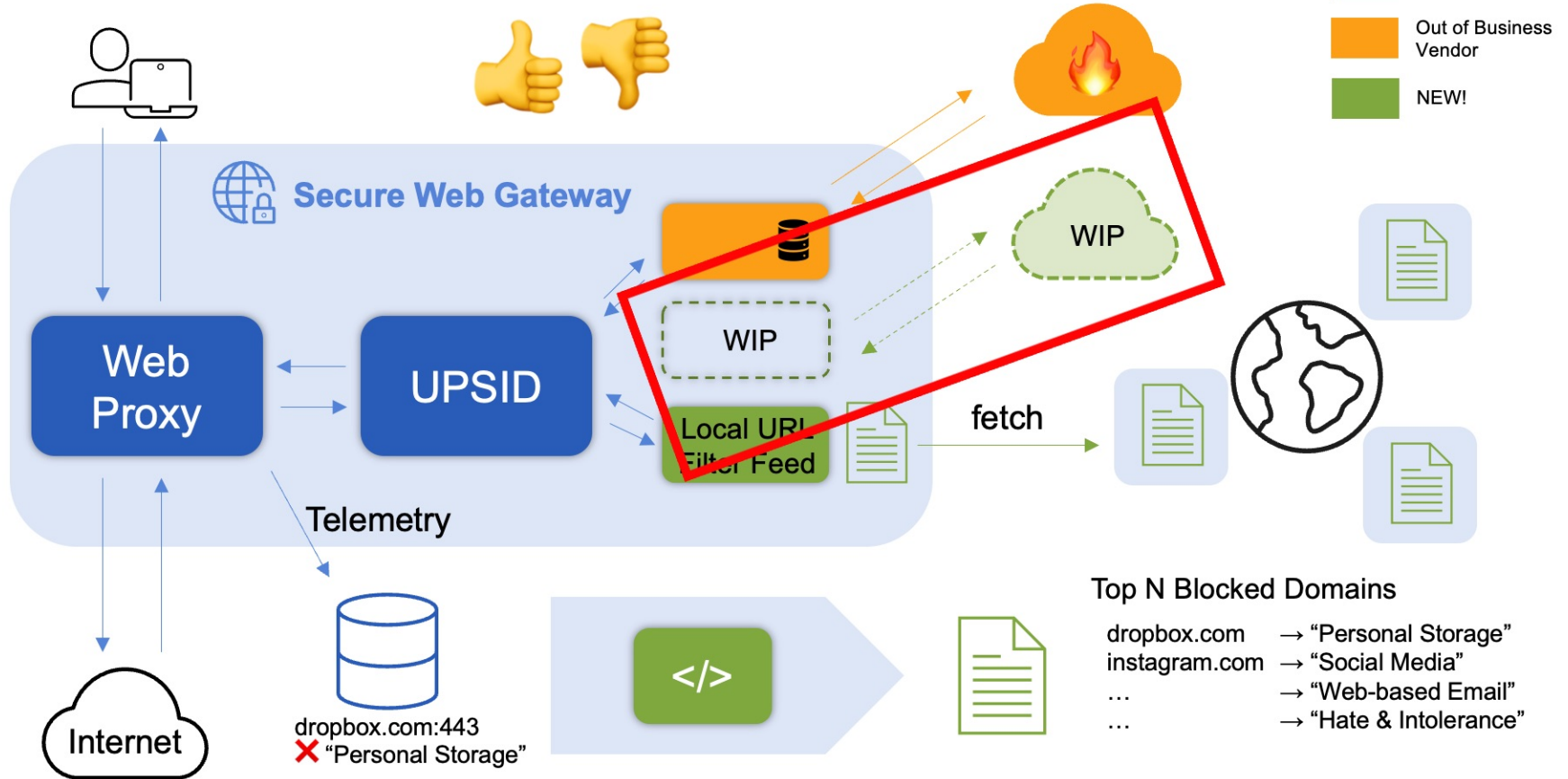
LOOKING BACK – CONFIG & RUNTIME PLATFORM



- Existing
- Out of Business Vendor
- NEW!



LOOKING BACK – VENDOR REPLACEMENT



LOOKING BACK - THE GOOD & THE BAD

Crisis preparedness



Communication

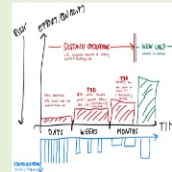


Hope for the best, plan for the worst



KISS

keep it simple, stupid



Trust “your” people





WHEN IT IS YOUR CRISIS...

1. STEP UP & TEAM UP

**2. MAKE A GOOD &
SIMPLE PLAN**

3. LEAD