



# SKILLS WORKFLOW

## Business Continuity & Disaster Recovery Plans

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# Agenda

Enhancing our brand digital presence and relationship

1 Objective

2 Scope

3 Critical Services

4 Disaster Declaration

5 Team

6 Procedures

Transform your agency. Make it an oasis of creativity and champion of productivity. Why use people to do tedious work software can do? Let computers do repetitive tasks and predict problems. Then, leverage human judgement to make the best decisions.





# 1. BCP / DRP Objective



# Why is a BCP / DRP needed?

Making sure the business keeps Running

Procedures to keep the system Online

Recovery Point Objective < 1h

Recovery Time Objective < 12h

Enumerate Critical Systems

Outages can occur

Who to Contact

We want you to improve your company's productivity like never before. Please fill in the fields below and we will get in contact with you really soon.





## 2. Skills Workflow Scope



# Worldwide Landscape

Data Centers in Europe, South America, North America with Production, UAT, Test and Development Environments



# Micro-Services Architecture

Inspired on Netflix's Micro-Services Architecture (services communicate over HTTPS / gRPC)



CLIENT APPS



# 3. Critical Services





# Critical Services

Databases, Storage, APIs, Integrations

**Services that must be always operational**

**Azure SQL Database**

**Azure Cosmos DB**

**Azure Storage**

**App Service / Web site**

**Interfaces to other systems**

**Global Services / Backend Services**

The Show must go On. Can't stop, can't fail, got to keep running...

Critical Services are never down.







# 4. Disaster Declaration



# When is Disaster Invoked?

Detected by both Skills Workflow and Microsoft

**Service Disruption detected longer than 4h**

**Data Centre problems confirmed by Microsoft**

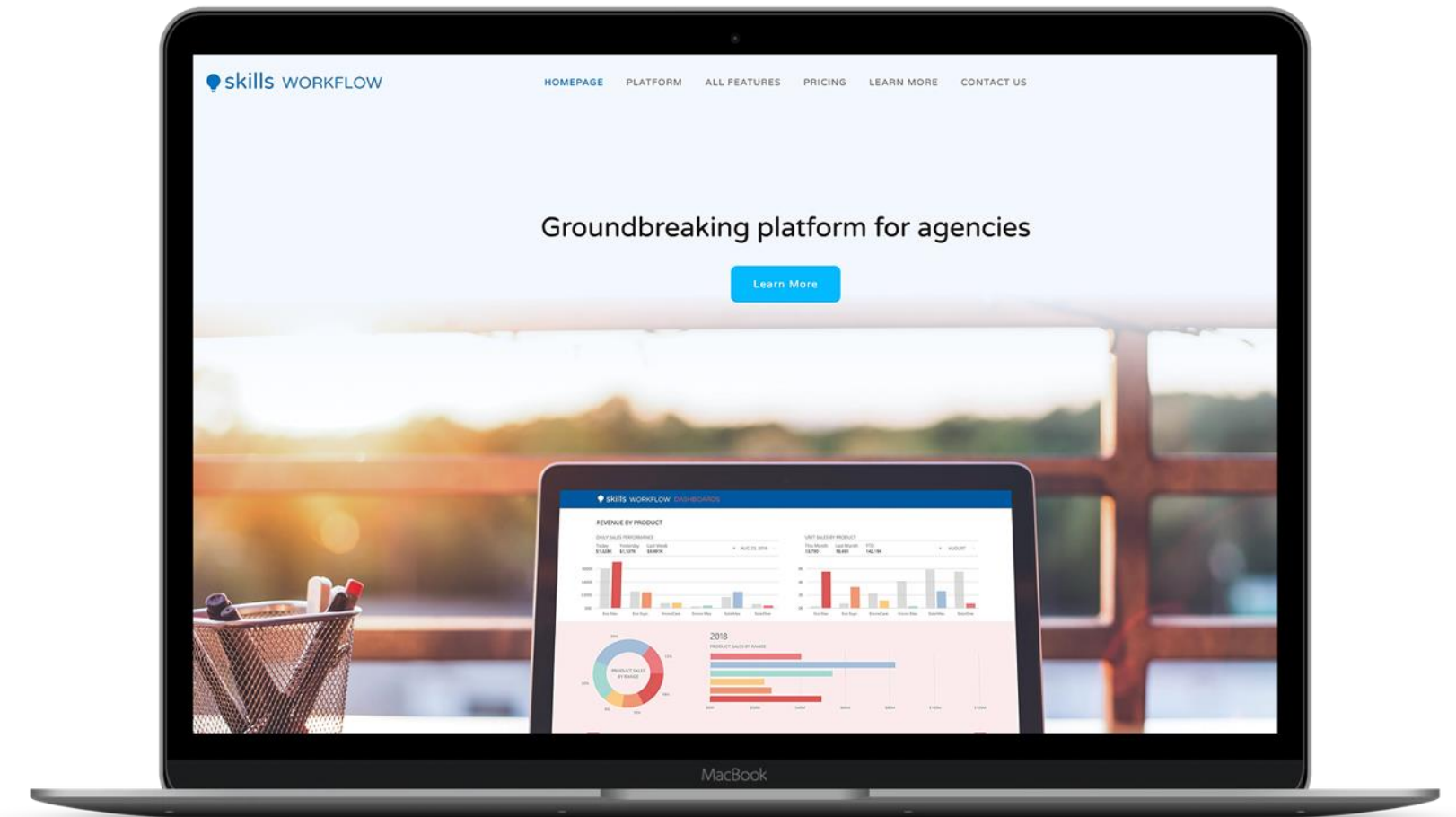
**Critical Services issues confirmed by Microsoft**

**Azure recommending failover**

**Clients are notified by E-mail**

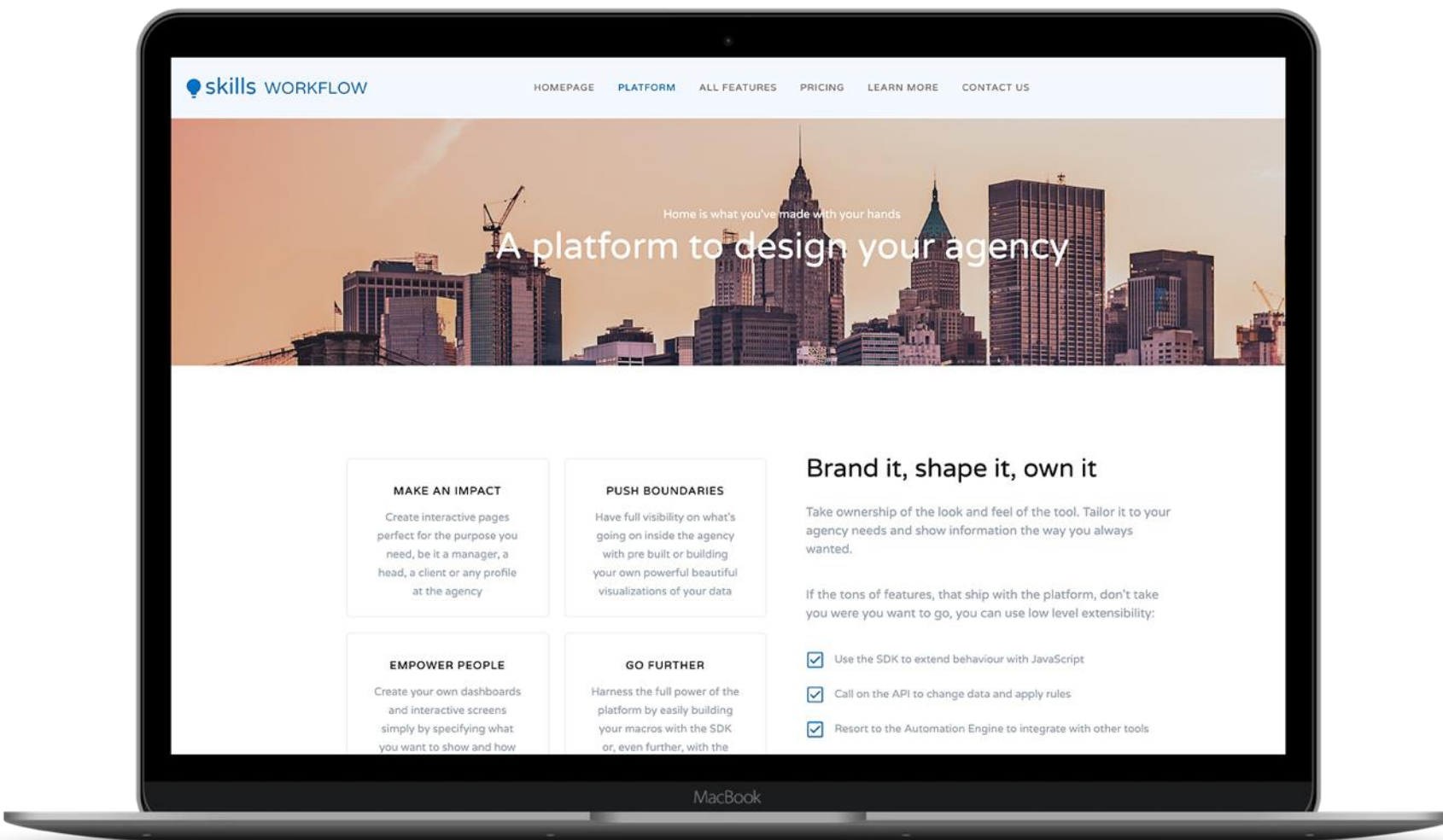
**<https://azure.microsoft.com/en-us/status/>**

No one needs to know my agency's processes by heart. We've designed the process flows and now everyone just follows in the footsteps of the tool. Can I use this on my kids?



# Data Center Locations

Global coverage, enables migration from a failing Data Centre to a healthy one



**3 Online Data Centers**

**Brazil South (Brazil)**

**West Europe (Netherlands)**

**East US (USA)**

**In case of outage an available DC is chosen**

**Closest DC chosen to take over on the same**

**Azure region**

Take ownership of the look and feel of the tool. Tailor it to your agency needs and show information the way you always wanted. If the tons of features, that ship with the platform, don't take you where you want to go, you can use low level extensibility:



# Team to Contact

Technical and Operational Team to reach out to

## Bruno Moscão – CTO

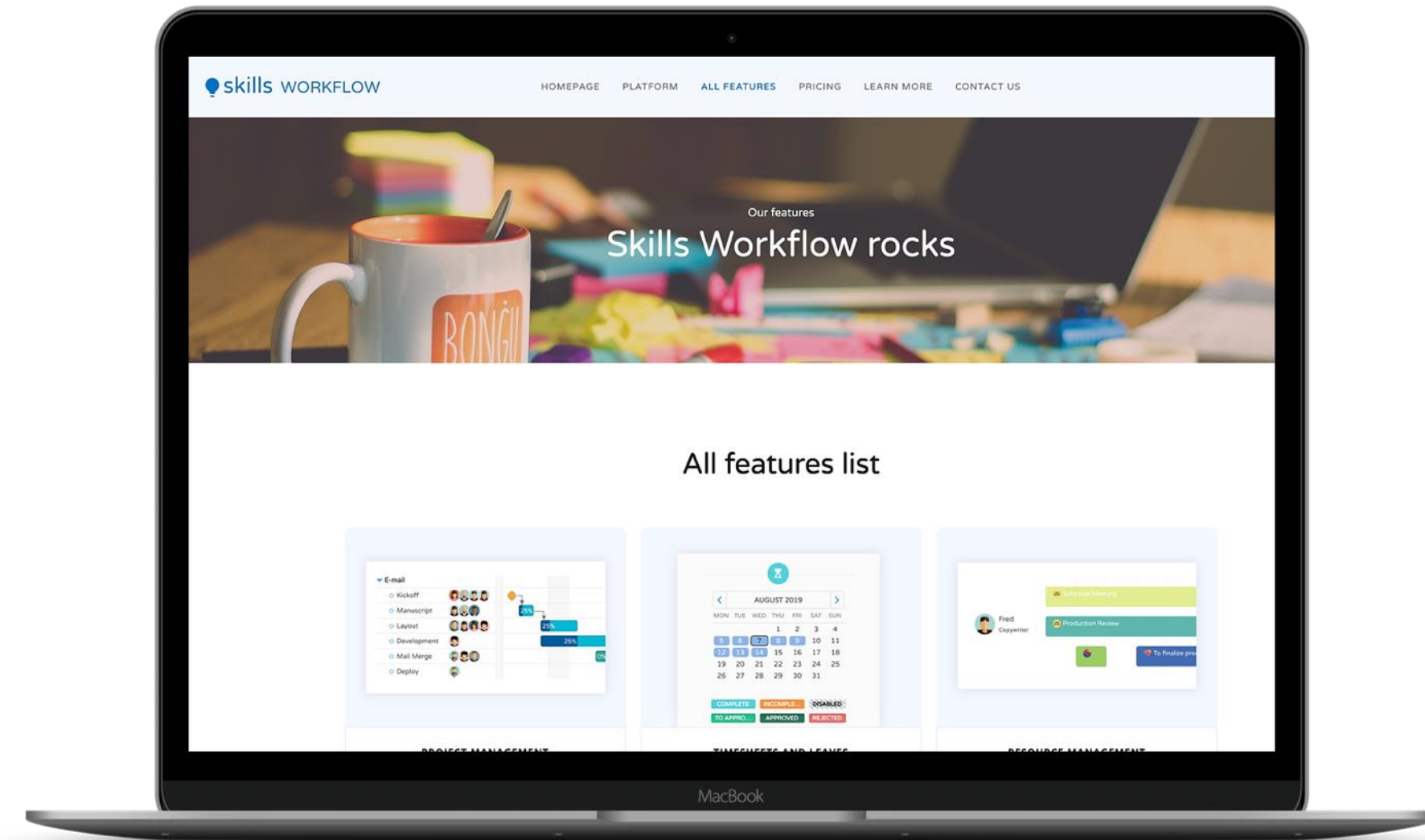
Phone: +351 937 540 489 E-Mail: [bruno@skillsworkflow.com](mailto:bruno@skillsworkflow.com)

## Eduardo Pinto – Engineering Director

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## João Paulo Duque Vieira – COO

Phone: +351 935 334 120 E-Mail: [joaopaulo@skillsworkflow.com](mailto:joaopaulo@skillsworkflow.com)



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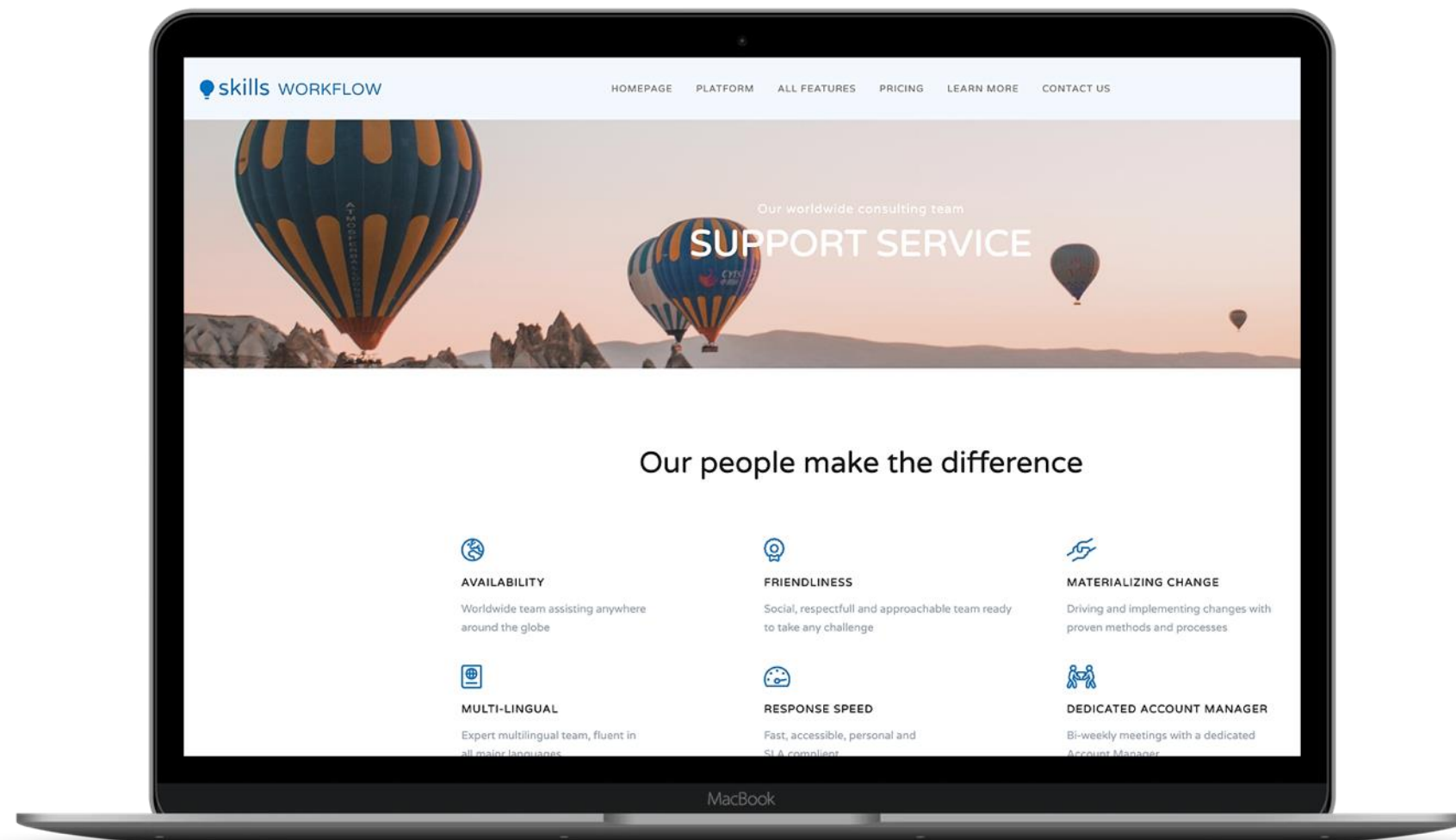
# 5. Procedures

A person wearing a grey button-down shirt is holding a red notebook with a pixelated cross design. They are also holding a green pen and several colored pencils (yellow, orange, purple, blue, and light blue). The background is a blurred blue and white pattern.



# Data Base Procedures

Data bases are moved to another Data Center



**Data is kept in Azure SQL databases**

**DBs are backed up continuously (<5min latency)**

**Backups stored in paired regions (< 1hr latency)**

**Database manually recovered on Portal**

**Backup is restored to another Data Center  
on the same Azure region**

# Storage Procedures

Microsoft automatically re-allocates Storage

Each DC uses at least one storage account

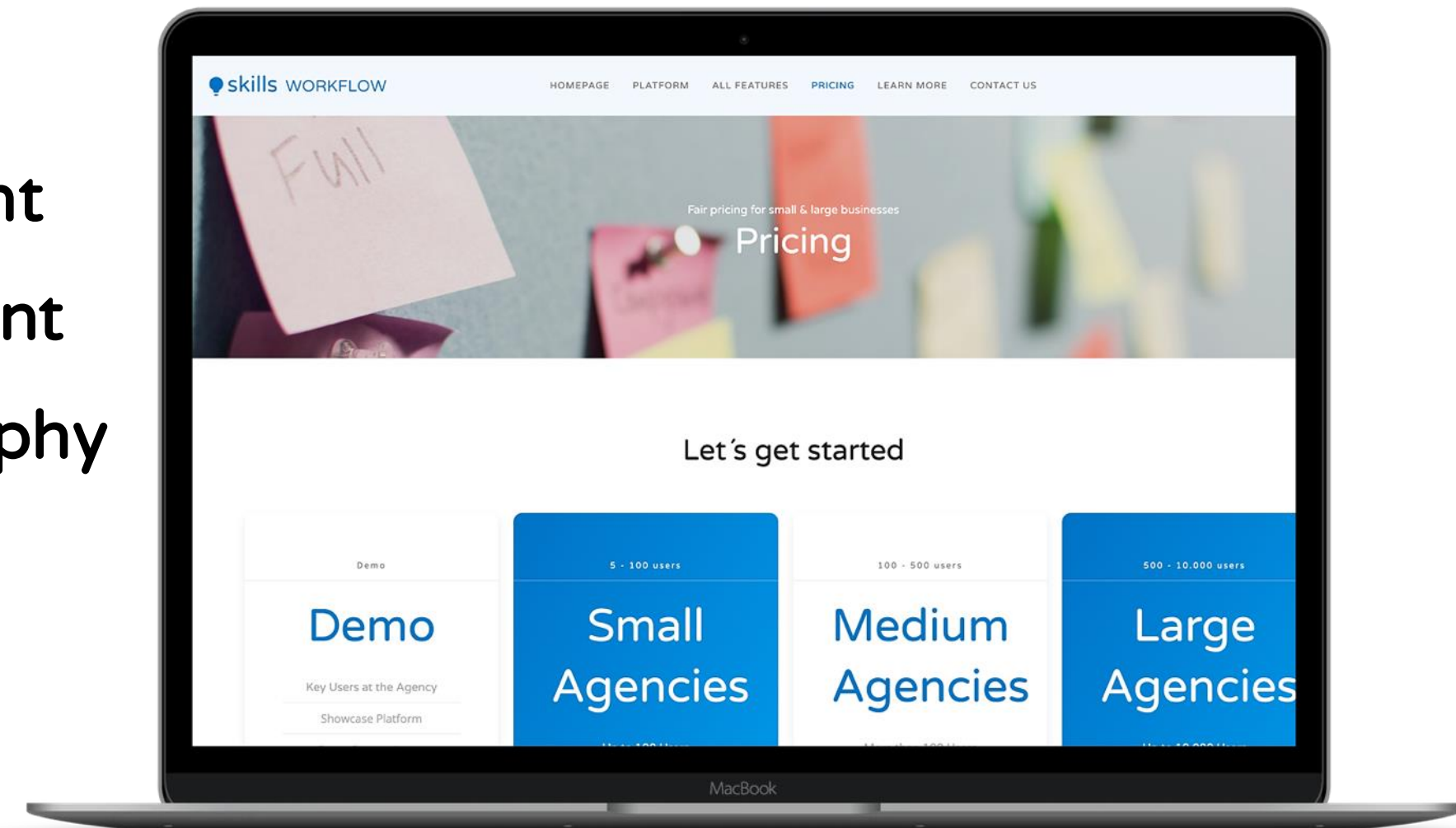
File data is stored as blobs in Storage account

Storage account configured as geo-redundant

Data kept in two regions in the same geography

Traffic is automatically re-routed

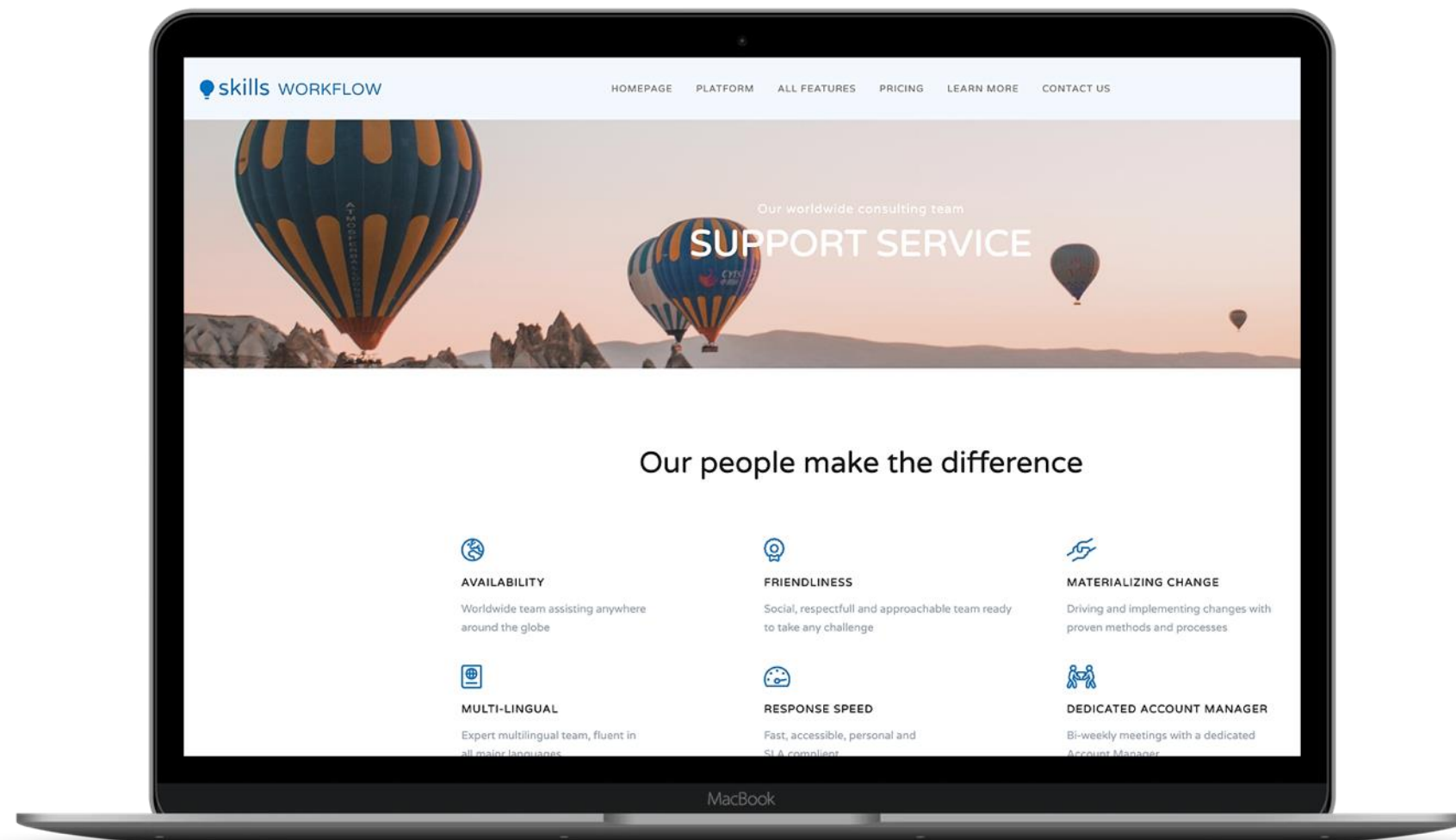
All the process is done by Azure





# Cosmos DB Procedures

Data bases are moved to another Data Centre



Some data is kept in CosmosDB

Data bases are backed up automatically

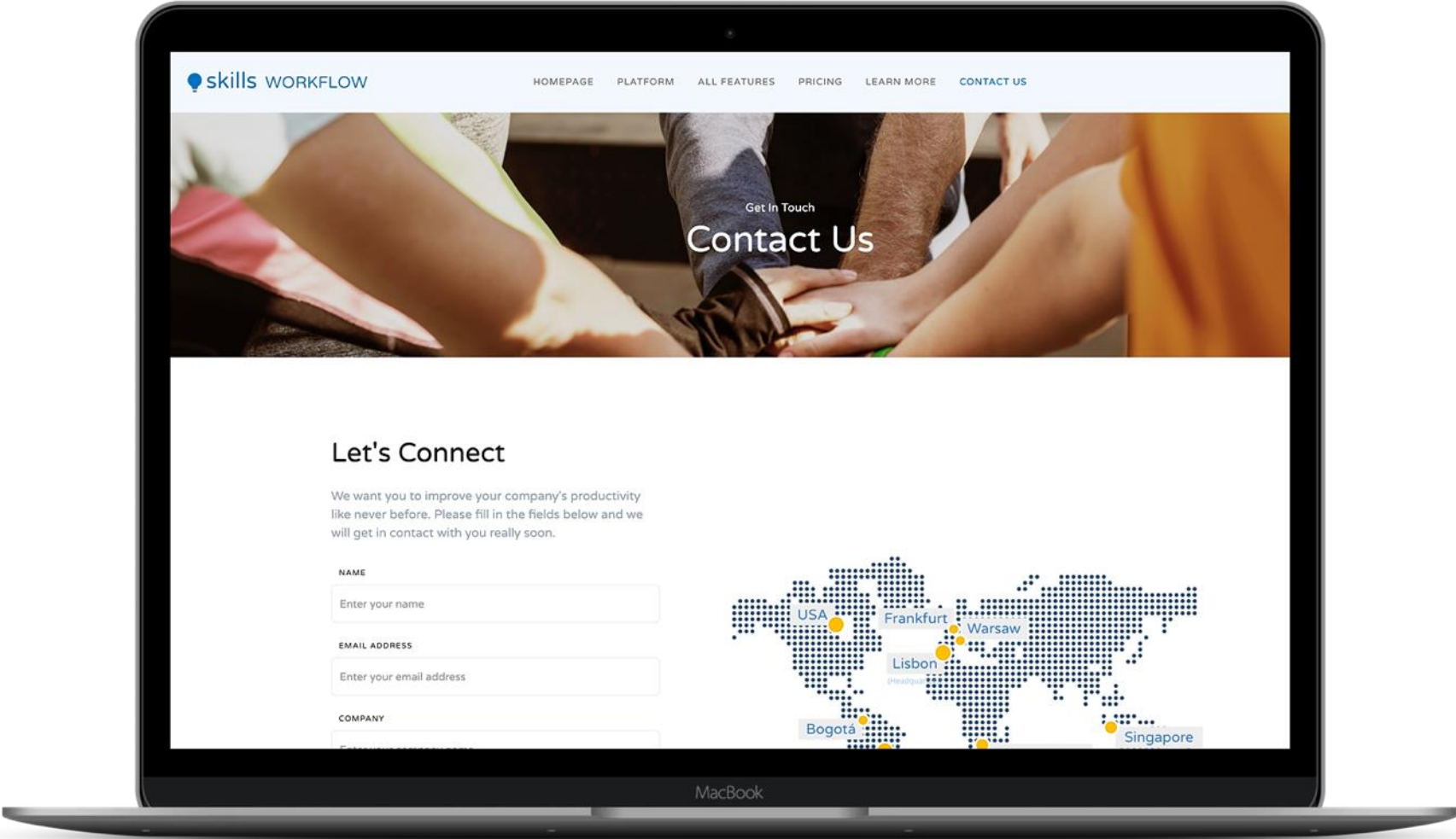
Backups stored in different Regions

Data manually recovered on Portal

Backup is restored to another Data Center  
on the same region

# Backend Services Procedures

Redeploy all microservices on new region

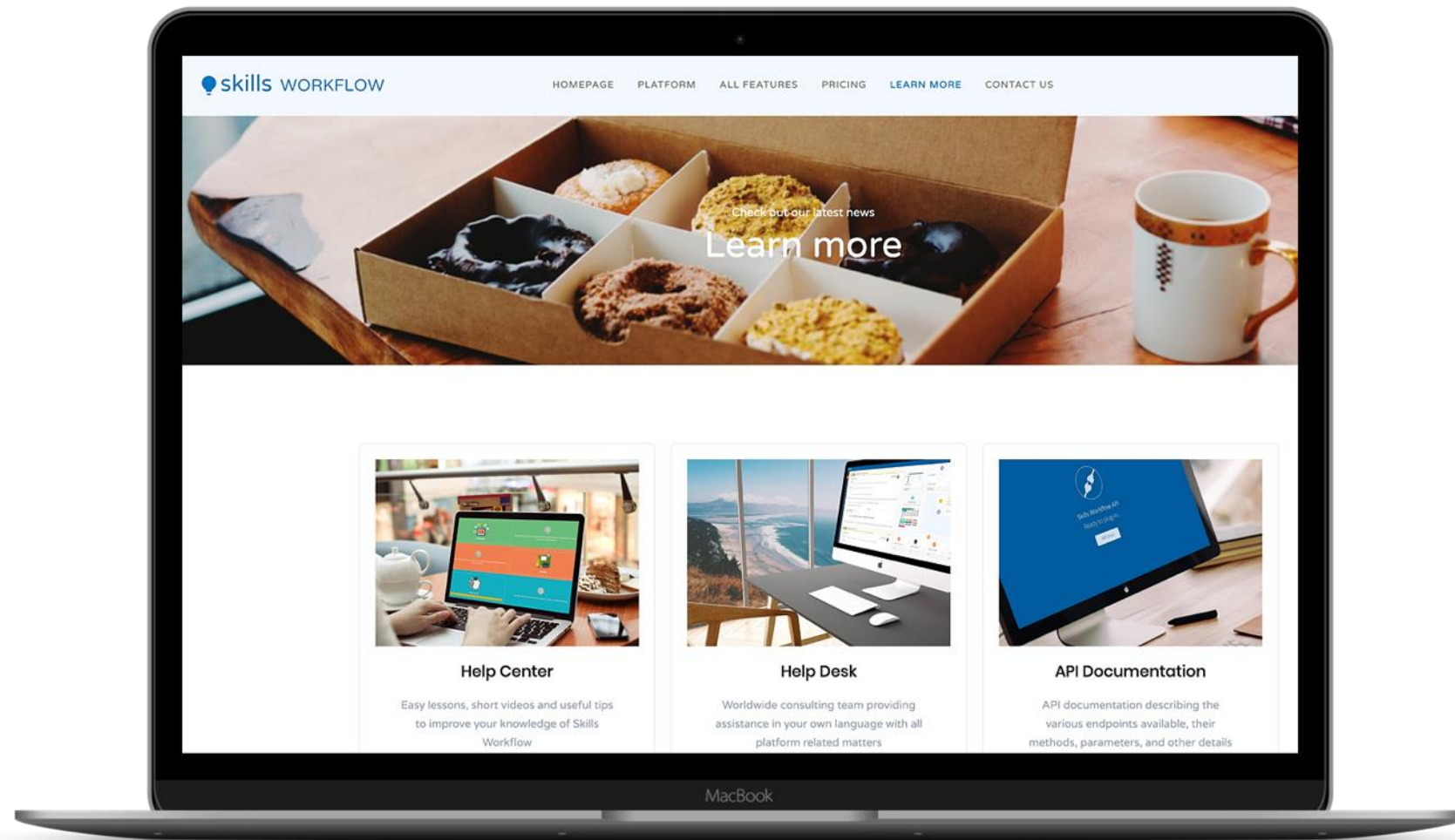


If you need further assistance in your own language at your office we got you covered. Fluent in many languages and with 24/7 support over Help Desk, our expert multilingual team will help you all the way from setup, implementation, training, integrations, to day-to-day support.



# Web site Procedures

Sites are moved and re-Deployed



The web apps are redeployed

An alternative Data Center is selected

The Web Sites are reconnected

Connection setup to the restored Databases

Storage accounts are automatically re-routed

Having a great team is not enough, but it surely helps. The team has been together for 20 years now. Lots of agencies have improved their productivity and bottom line due to tools built by this team.

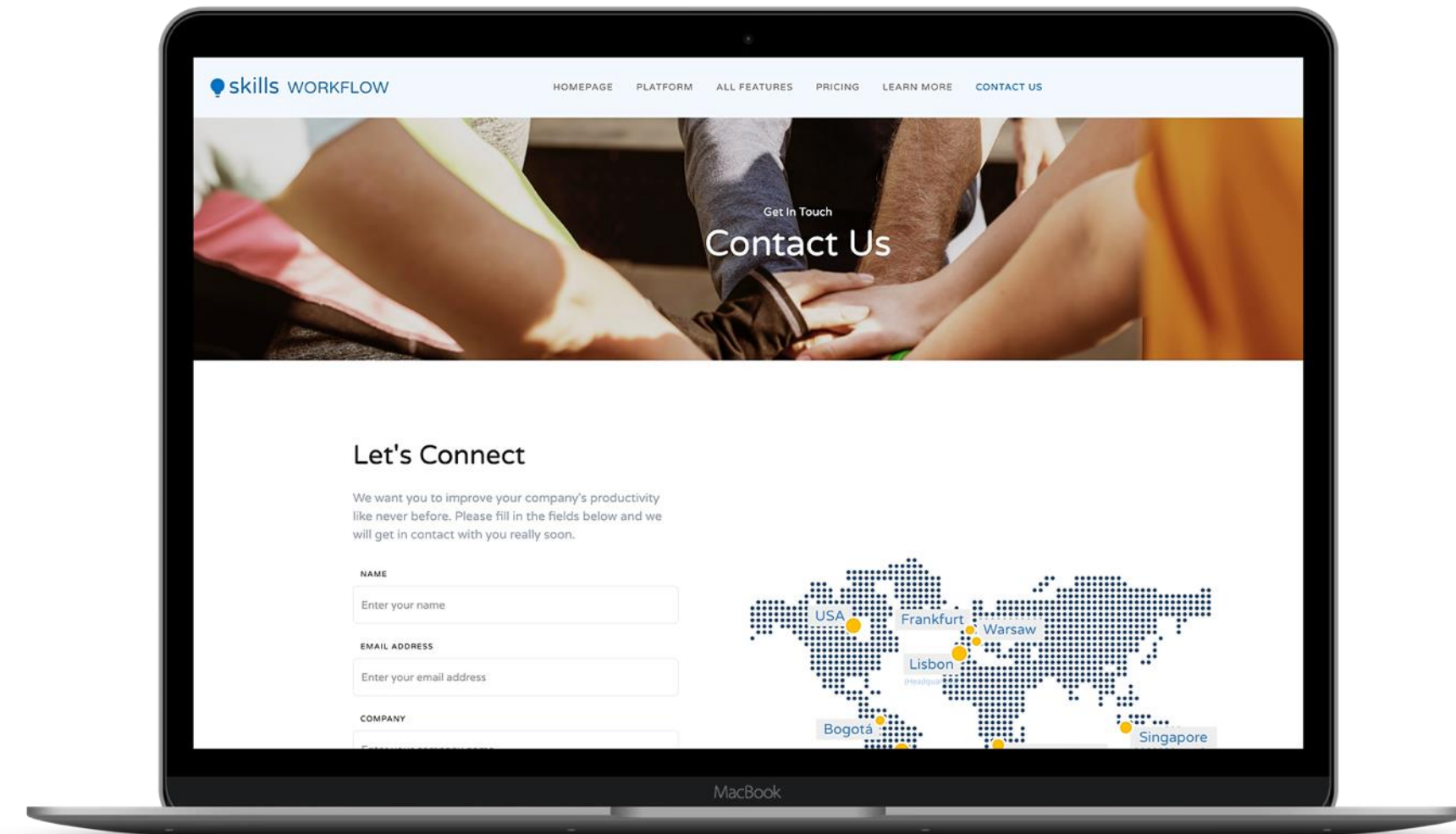
# Notifications Hubs Procedures

Deprovisioned in new Data Center

**Not a critical service**

**Will be provisioned as a new Resource**

**After having the alternative Data Center**



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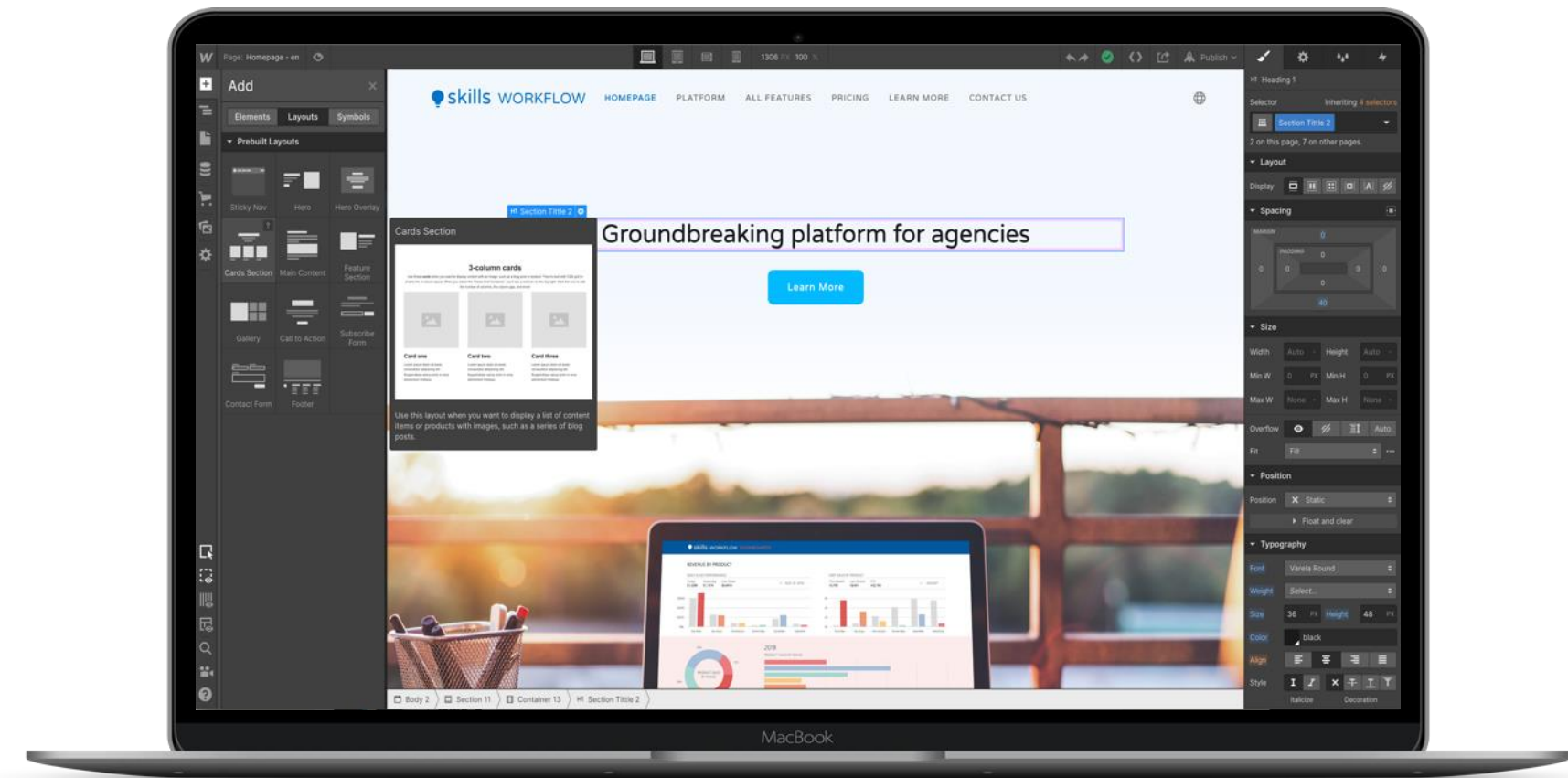
# Service Bus Procedures

Dependencies: Notifications and Data Warehouse

**Not a critical service**

**Not provisioned as a new resource**

**The system will work in degraded mode**



Our site is property of everyone of us. It's an asset of our brand. We are entitled to suggestions. Ideas are more then welcome and appreciated.. Everyone of us has the obligation to make it show how different we are.



# Traffic Manager Procedure

Responsible for requests Routing between Services

**Traffic manager is reconfigured**

**All traffic is routed to new Data Center**

**Up to 2 hours to propagate**

Creative work isn't innovation all the time, experience grants an archive to draw from.

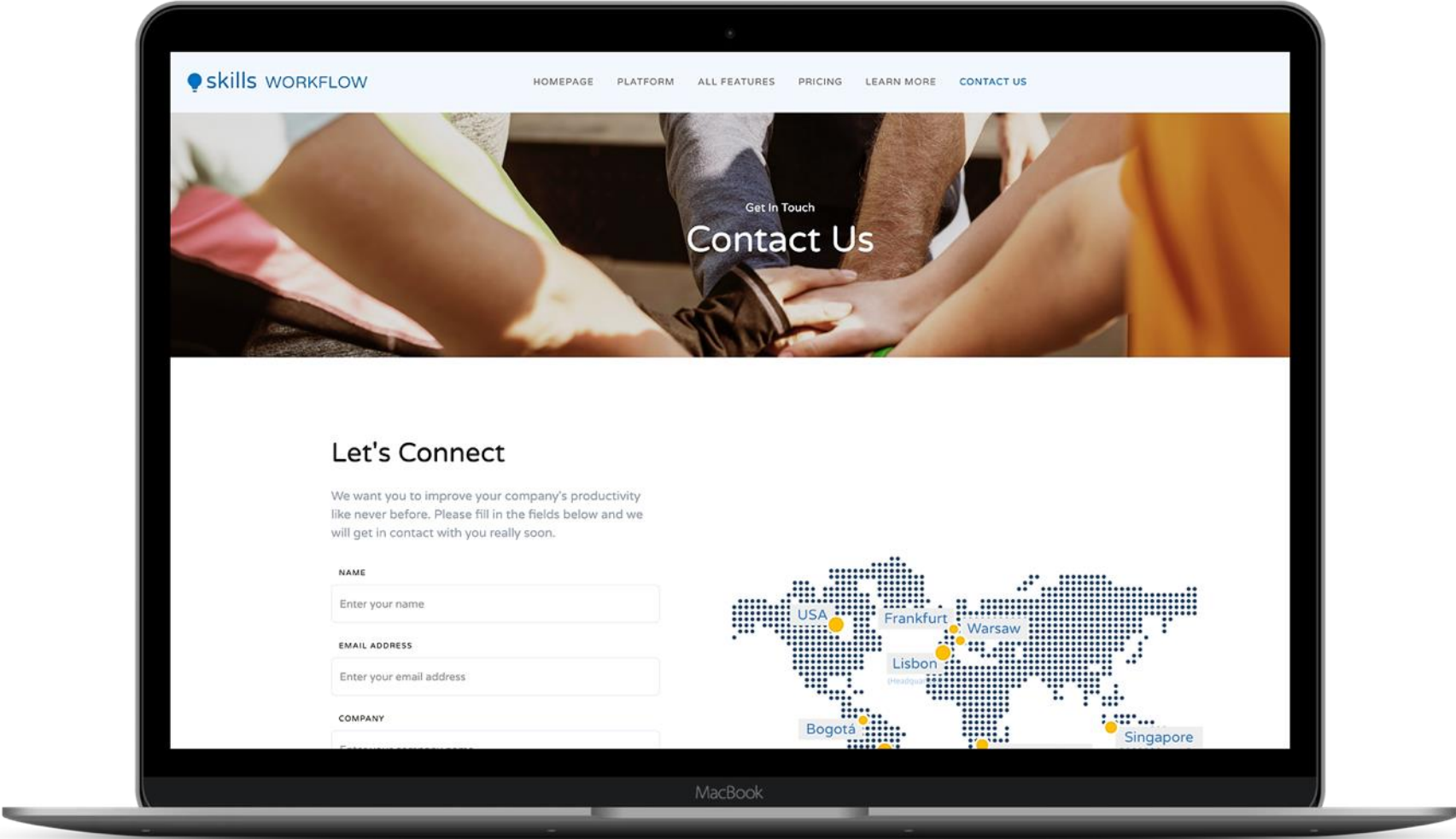




# Global Services Procedures

Replicated and online in at least 3 DCs

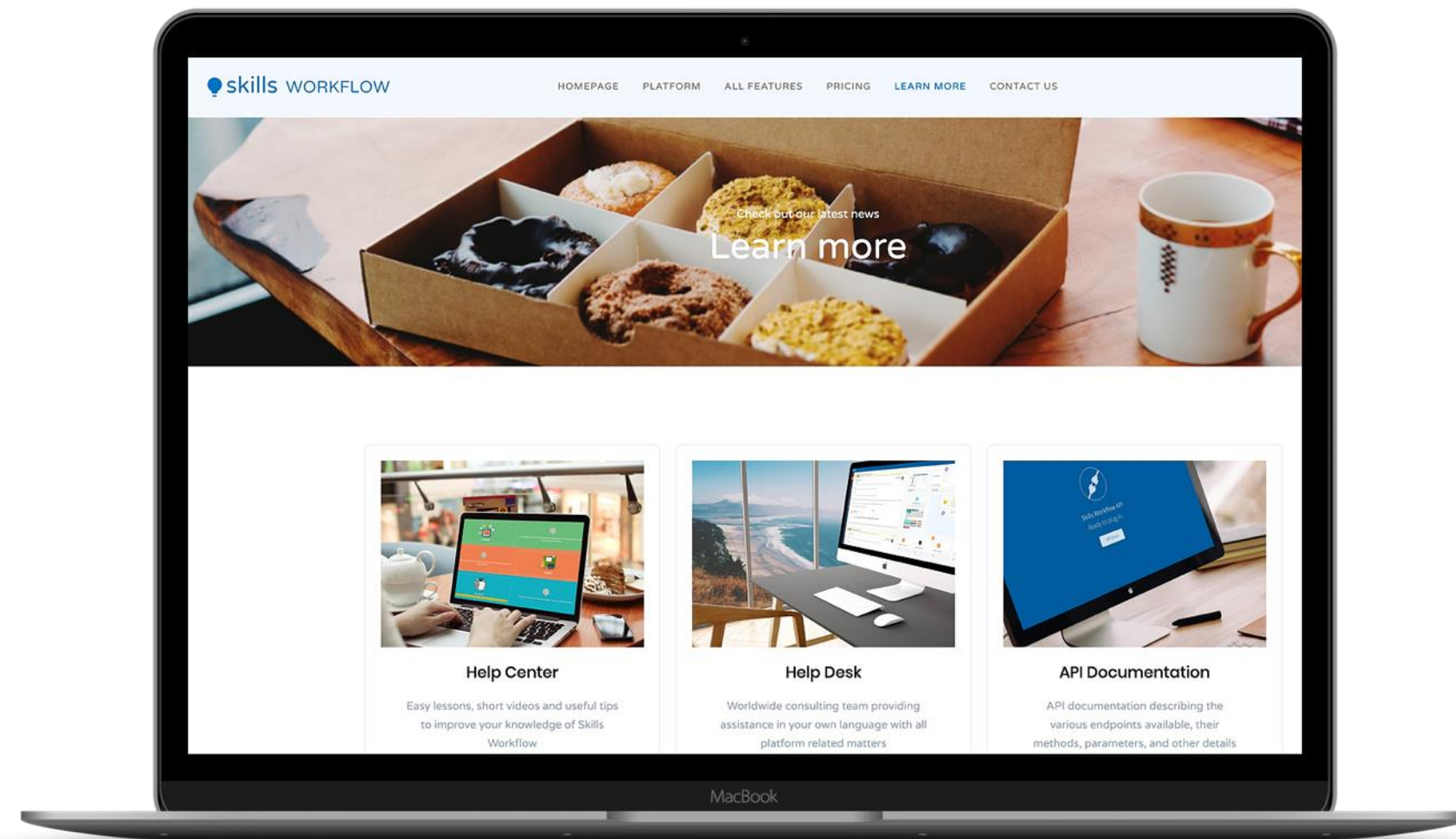
No need for manual action  
Traffic automatically rerouted to healthy DCs



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# Office Procedures

Making sure Help Desk and Support Teams are 100% available



**There are no Critical services on site**  
**In case of an incident Team goes home**  
**Operations are maintained remotely**  
**Home office or co-workspace is used**  
**There are no dependencies from the Office**

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# Integrations Procedures

Step 1 is checking that integrations are up and running

Issues are always communicated via email

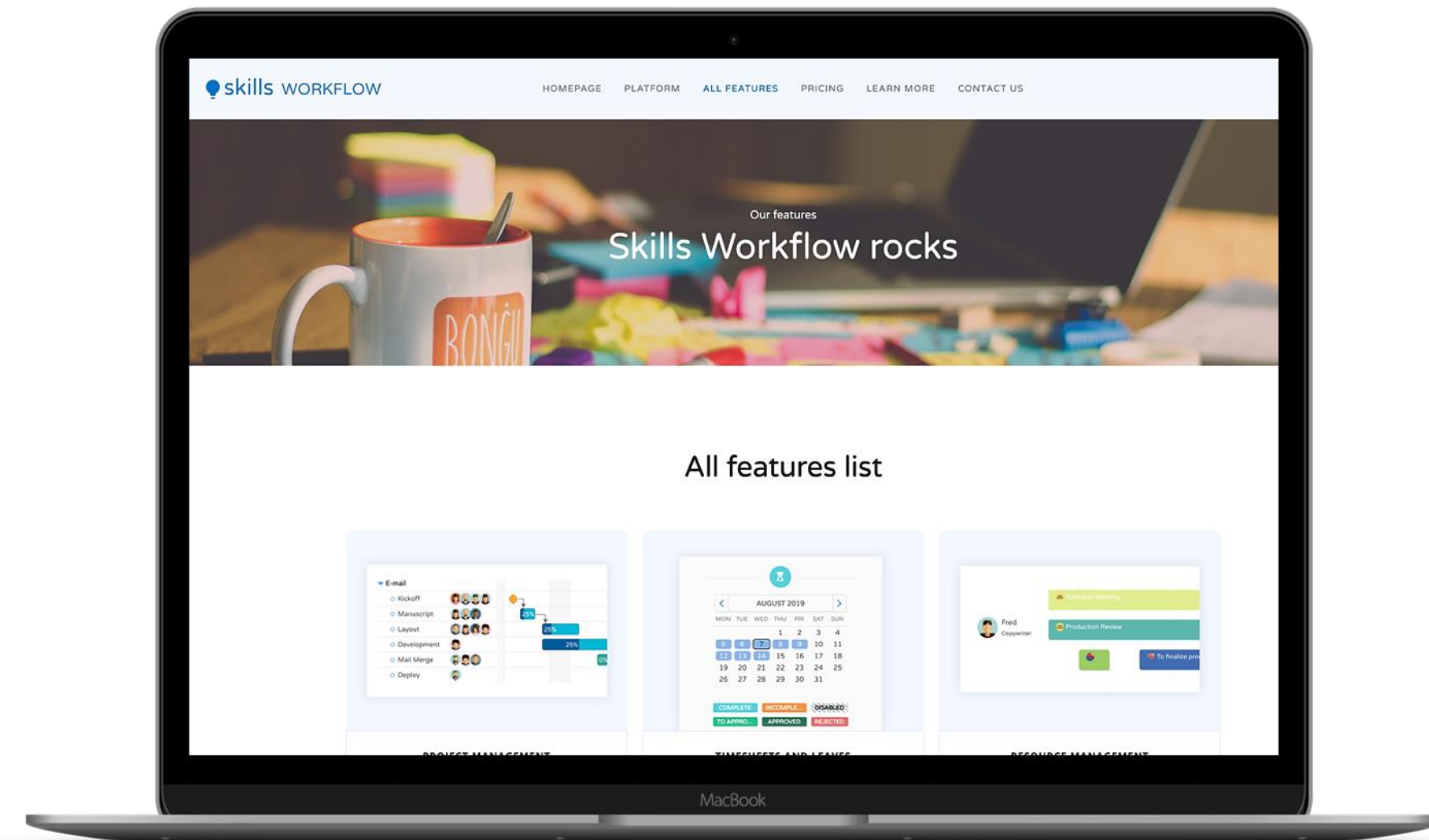
Team communicates with the Client team

Team analyses the possible issues

Inbound / Outbound channels are reviewed

Verification of IP firewalls restrictions

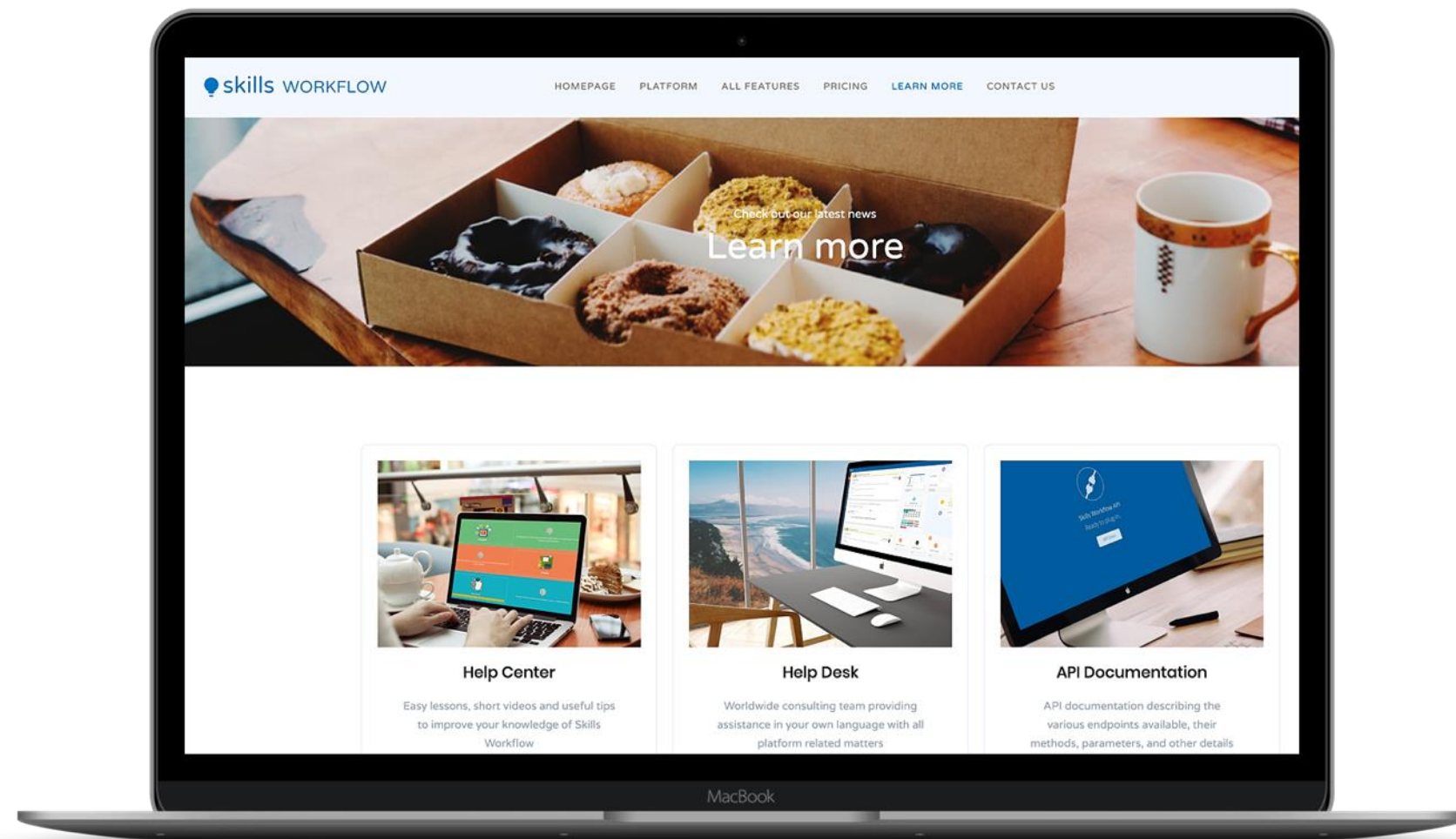
Logs are analyzed checking error messages



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# Integration Procedures

Step 2 is checking for Disaster Recovery activation



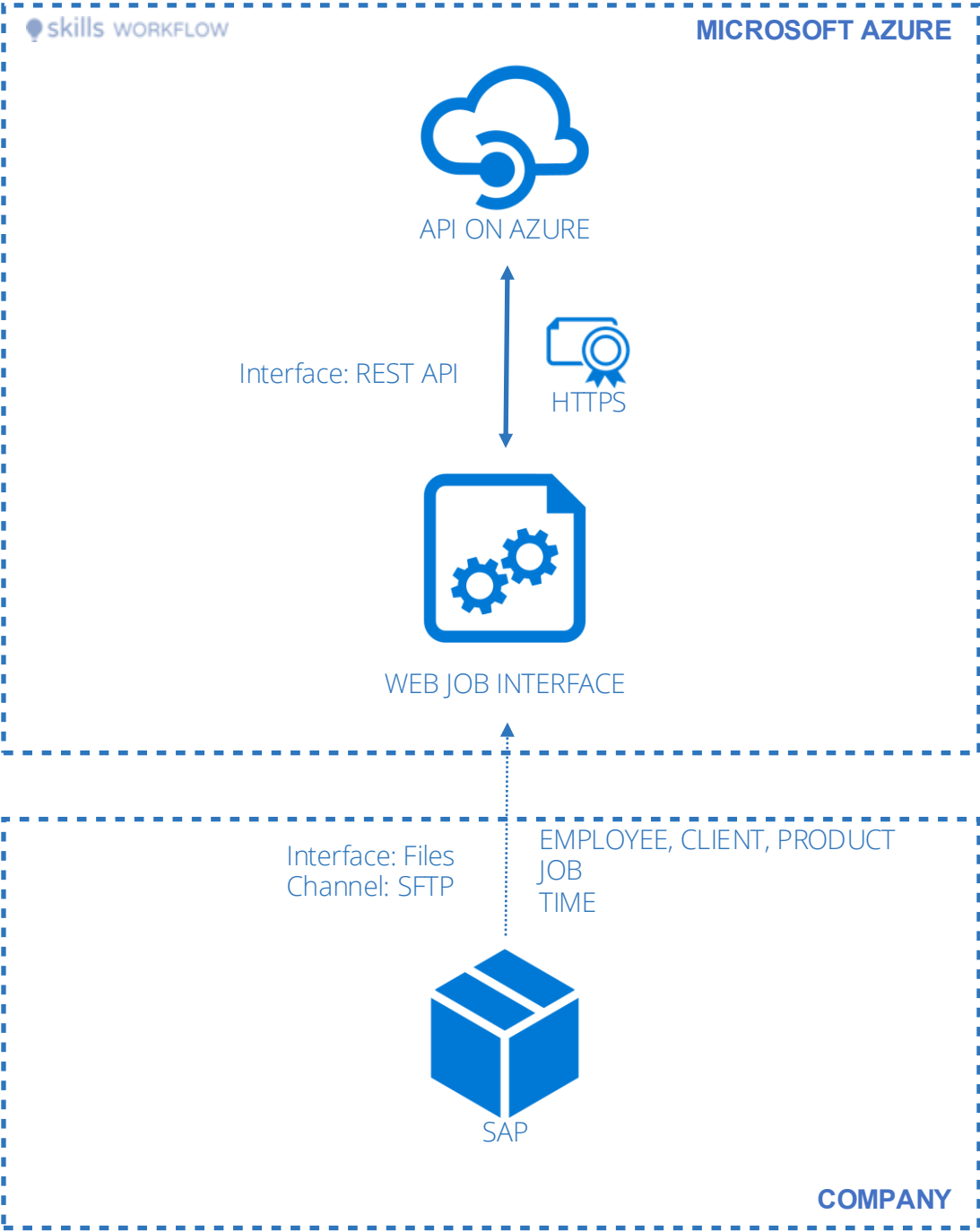
**On Prem redundancy handled by the Client**  
**Cloud redundancy handled by Skills Workflow**  
**On Prem 2 servers are needed in case of outage**  
**Sites must have the same configuration**  
**Geo redundancy hosting handled by the Client**

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# SFTP Integration

Example: SAP Integration Diagram



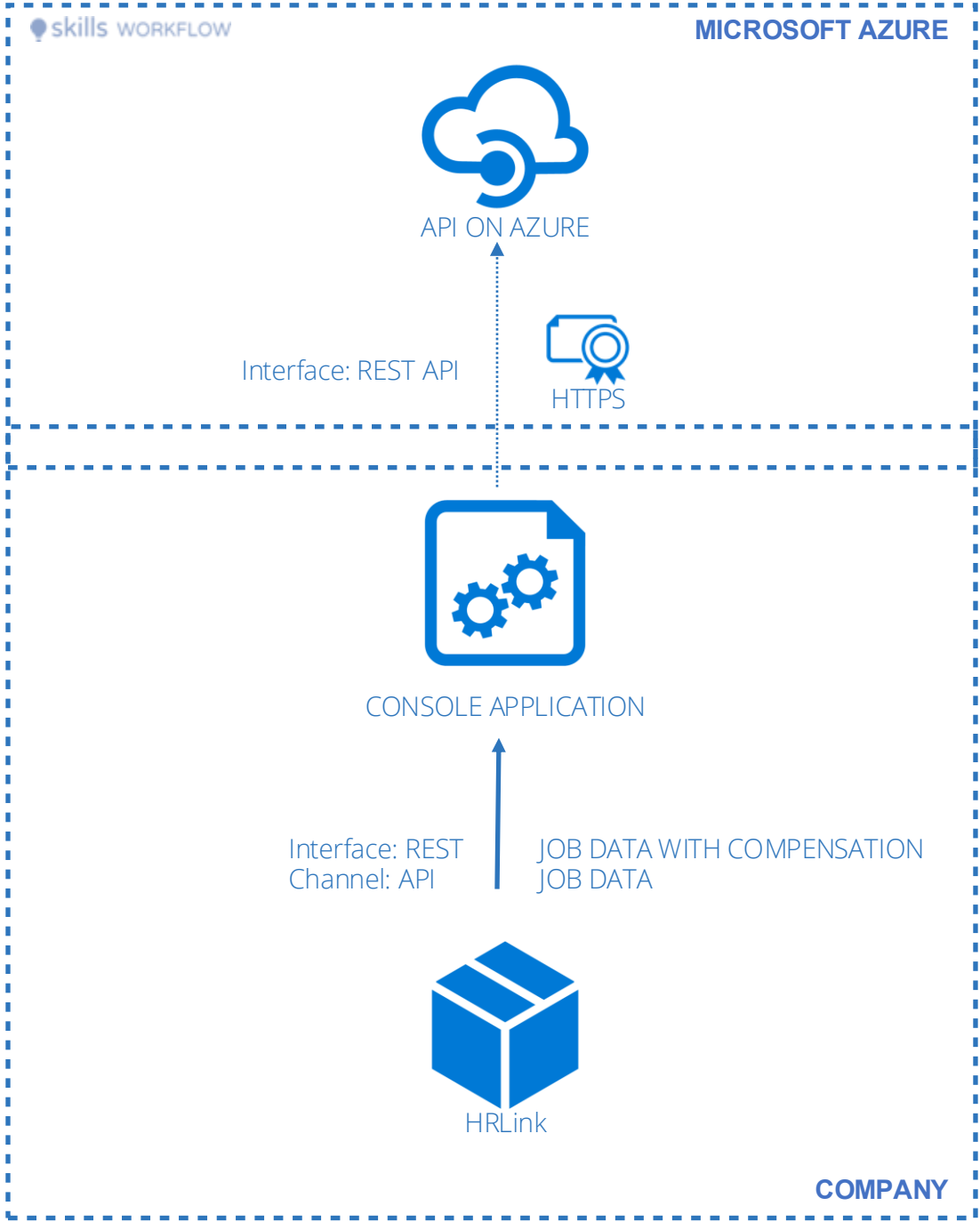
## COMMENTS

The integration application runs outside the client’s network since it only needs to send files and get files from the FTP server in the client’s infrastructure.

The Web Job uses SFTP to get Master Files, Jobs, Estimates and Time. The Web Job sends back Job Assignments to make it easier to key-in time in SAP.

# Internal API Integration

Example: HRLink Integration Diagram



## COMMENTS

The integration application runs inside the client's network since the security policy doesn't allow the API to be called from the cloud.

The Console Application calls on the HRLink internal API to get the data and then forwards the data by calling on the Skills Workflow's API in the cloud.

Ports for SMTP for email notifications on errors (to administrators) and HTTPS for RayGun (error logging) should be open for outbound communication.



# Thank You

January, 2025

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