PowerM

think

BANK AL MAGHRIB

Présentation du 15.03.2022

PowerM

Paradigm:

Think Outside the Box

More with Less

Date de création: **2011**

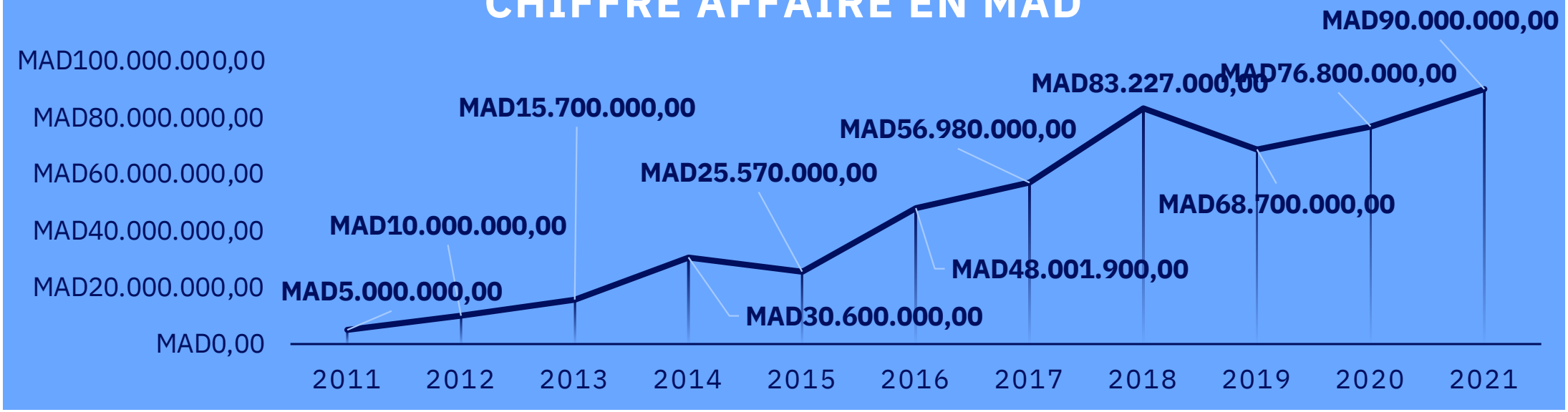
#Consultants : **25**

Moyenne Age: **30 ans**

#Capital Sociale : **8MDH**

#Chiffre d'affaire Moyen : **75MDH**

CHIFFRE AFFAIRE EN MAD



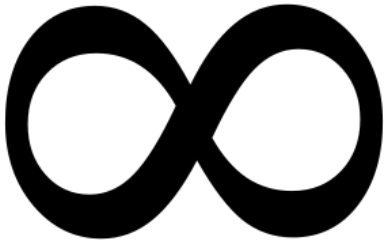
1- IT infrastructure

Support information technology services with a combination of hardware, software, networks and facilities.

- Server
- Backup
- Storage
- Middleware
- Network

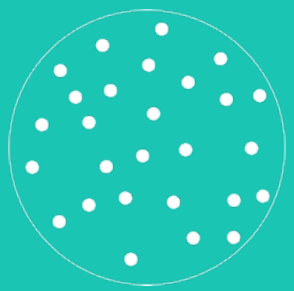
2- Always ON

Always On: Assess, Design, Implement, and Manage Continuous Availability



3- Application Modernization

- Run time modernization
- Application modernization
- Architecture modernization



4- IT Cost Optimization

- Centralize, consolidate, modernize, integrate and standardize technologies
- Leverage cloud services
- Rationalize and standardize applications Optimize software licensing management and IT asset management capabilities

PowerM

#1 IBM Business Partner Morocco (#3 in Africa and #46 WW)

#Top 5 EMC Business Partner Morocco

#Top 2 HPE Business Partner Morocco

#1 Lenovo Business Partner Morocco

DELL, Lenovo Competencies

1. Server Systems
2. Storage Systems
3. Data Protection
4. Converged Systems

HPE,Huawei Competencies

1. Server Systems
2. Storage Systems
3. Data Protection

Hewlett Packard Enterprise
Solution Provider
SILVER PARTNER

DELL EMC PARTNER GOLD

vmware PARTNER
ENTERPRISE SOLUTION PROVIDER

HUAWEI
Enterprise Partner
Authorized

Data Center Partner
Platinum
Lenovo

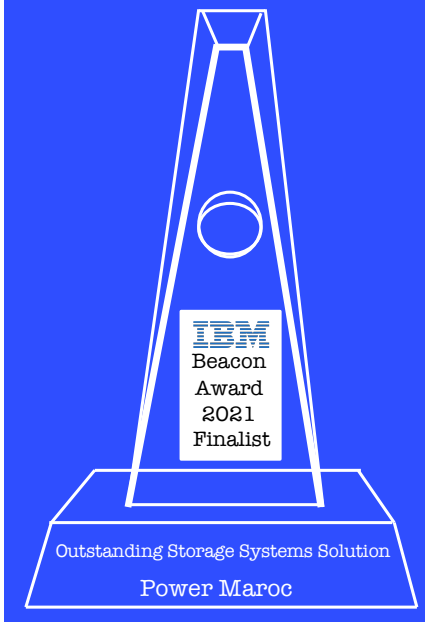
PowerM

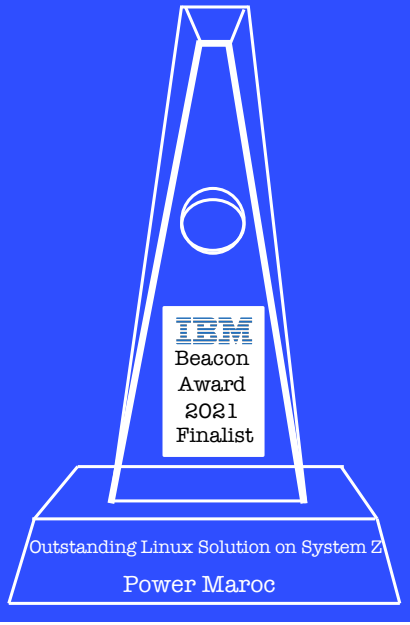
IBM Platinum BP :2018, 2019,2020 , 2021 and 2022

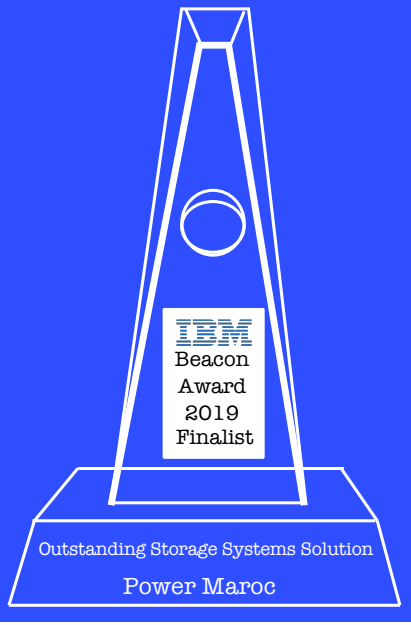
IBM Platinum Business Partner ™

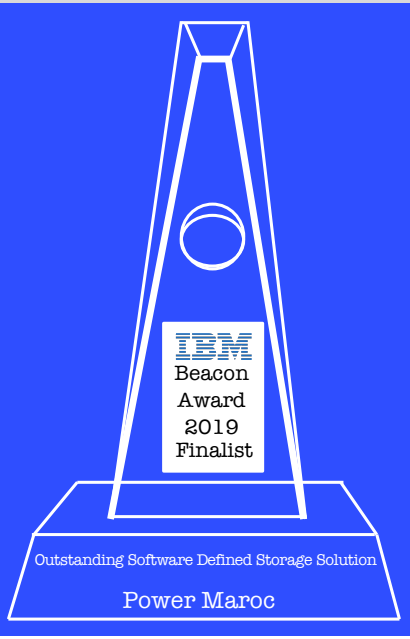
Nine IBM Competencies

1. Power Systems
2. Storage Systems
3. Spectrum Software Defined Infrastructure
4. Private Cloud
5. Data Science and Business Analytics
6. Cloud Management
7. Hybrid Data Management
8. DevOps
9. LinuxONE









Sponsor Think 2019 (SF) and 2020 (Digital)

5-time speaker - sessions @Think (SF and Digital)

2-time speaker World Wide Software Architecture Summit 21 and 2022

4 x IBM Champion 20 , 21 and 2022 (Power , Storage and Automation)

Customers success stories:

orange

الخطوط الملكية المغربية
royal air maroc

CFG BANK

Maroc Telecom

التجاري وفا بنك
Attijariwafa bank

OCP

CIH BANK

BANK OF AFRICA
BMCE GROUP

TANGER MED
PORT AUTHORITY

BANQUE POPULAIRE

JACOBS

newrest

وفاسلف
Wafasalaf

Lydec ليدك

الضمان الاجتماعي
CNSS

مصرف المغرب
CRÉDIT DU MAROC
Toute une banque pour vous

بنك المغرب
BANK AL-MAGHRIB

ملتزمون بحمايتكم

كنوبس
CNOPS

aMaDEUS

CREDIT AGRICOLE DU MAROC

Royaume du maroc
Ministère de la justice et des libertés

Centre Monétique Interbancaire
مركز النقديات

Royaume du Maroc
Administration des Douanes et Impôts Indirects

المملكة المغربية
إدارة الجمارك والضرائب غير المباشرة

وفاباي
Wafabail

MAROCLEAR
CSD MOROCCO

المديرية العامة للضرائب
DIRECTION GÉNÉRALE DES IMPÔTS

الخزينة العامة للمملكة
TRESORERIE GENERALE DU ROYAUME

ANCFCC

CDG
صندوق الإيداع والتدبير
CAISSE DE DÉPÔT ET DE GESTION

أمانديس
Amendis

ICPC
الهيئة المركزية للوقاية من الرشوة
Instance Centrale de Prévention de la Corruption

ROYAUME DU MAROC
MINISTERE DE L'EQUIPEMENT ET DES TRANSPORTS

الصندوق المغربي للتقاعد

Union Marocaine des Banques

ANP
الوكالة الوطنية للموانئ
Agence Nationale des Ports

al Amana
MICROFINANCE

PowerM

Contact : 320 BD Zerktouni , 6th floor, Casablanca Morocco . https://powerm.ma

PowerM Références Software- Banques et Gov

IBM WebSphere

IBM MQ

IBM Spectrum Scale

BANQUE POPULAIRE

IBM Spectrum Scale

IBM Cloud Object Storage

IBM Spectrum Discover

IBM Spectrum Virtualize for Public Cloud

IBM DataStage

IBM DB2

Red Hat Ceph Storage

Red Hat OpenShift Container Storage

التجاري وفا بنك
Attijariwafa bank

IBM

Cloud Pack for Applications

IBM WebSphere

Red Hat OpenShift Container Storage

IBM MQ

IBM Spectrum Storage

Control Protect Archive Virtualize Accelerate Scale

BANK OF AFRICA
BMCE GROUP

WebSphere Message Broker

IBM WebSphere

IBM App Connect

IBM MQ

IBM CICS

IBM CICS Transaction Gateway Connector

IBM Spectrum Storage

Control Protect Archive Virtualize Accelerate Scale

IBM Integration Bus

CIH BANK

PowerM Références Software- Banques et Gov

IBM WebSphere

IBM MQ

IBM Spectrum Storage

Control · Protect · Archive · Virtualize · Accelerate · Scale

مجموعة القرض الفلاحي للمغرب
GROUPE CREDIT AGRICOLE DU MAROC
UN ENGAGEMENT DURABLE

IBM Spectrum Scale

IBM Cloud Object Storage

IBM Spectrum Discover

IBM Spectrum Virtualize for Public Cloud

IBM WebSphere

HCL Digital Experience

IBM DataStage

IBM DB2

IBM Cognos Analytics

المديرية العامة للضرائب
ⵜⴰⵎⵙⵍⴰ ⵜⴰⵎⴰⵜⴰⵢⵜ ⵏⵉⵔⴳⴰⵢⵏ
DIRECTION GÉNÉRALE DES IMPÔTS

IBM

IBM WebSphere

IBM Spectrum Storage

Control · Protect · Archive · Virtualize · Accelerate · Scale

Royaume du Maroc
Ministère de l'Economie et des Finances
Administration des Douanes et Impôts Indirects

IBM Cognos Analytics

IBM MQ

IBM WebSphere

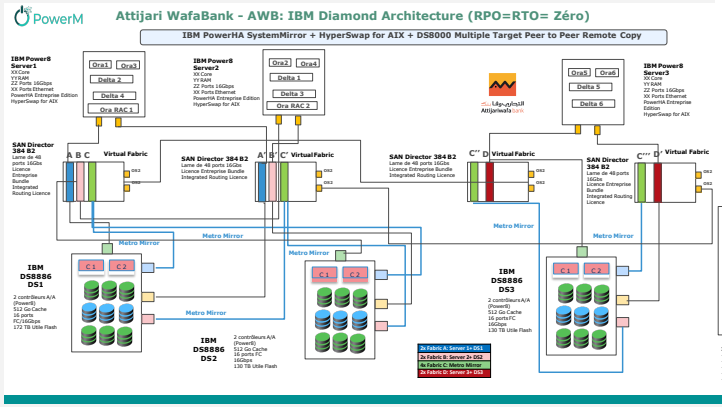
IBM DataStage

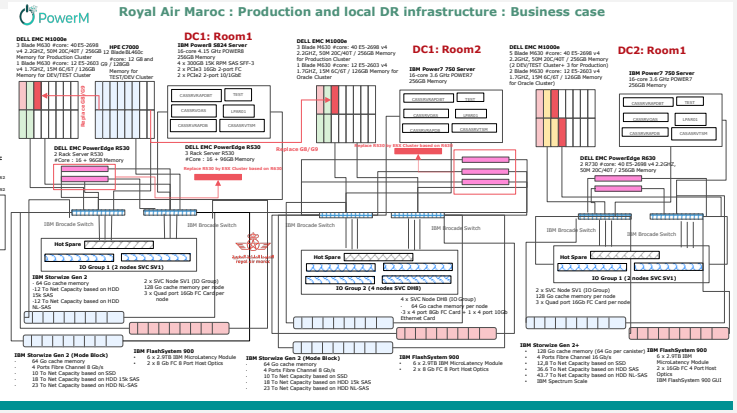
WebSphere Message Broker

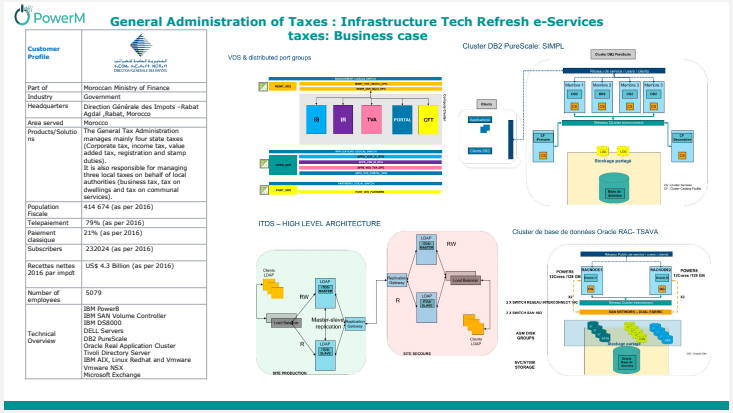
Maroc Telecom

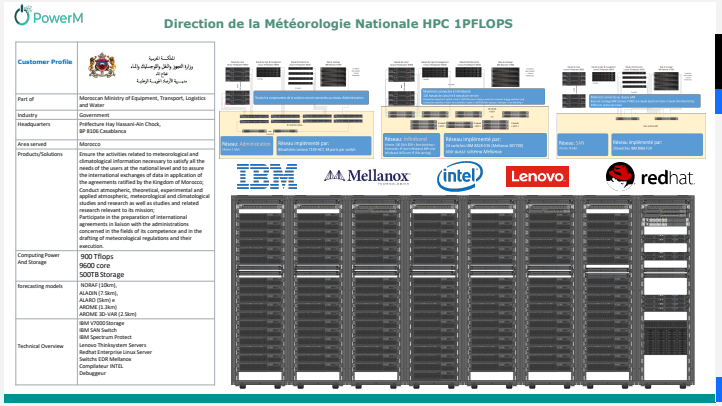
Core Business : Private Cloud, Infrastructure and Inegration

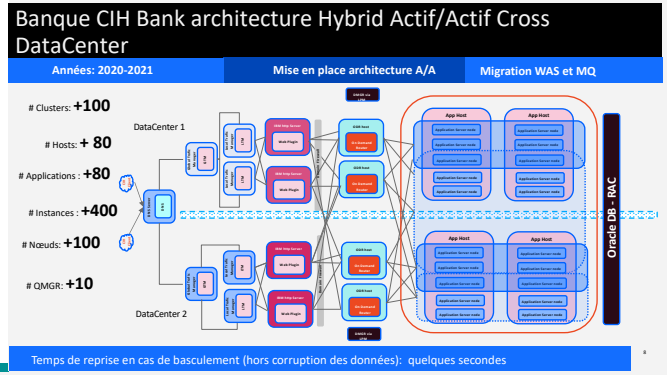
High Performance Computing

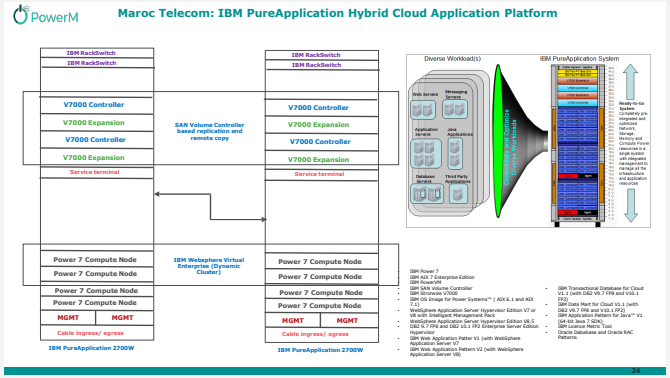






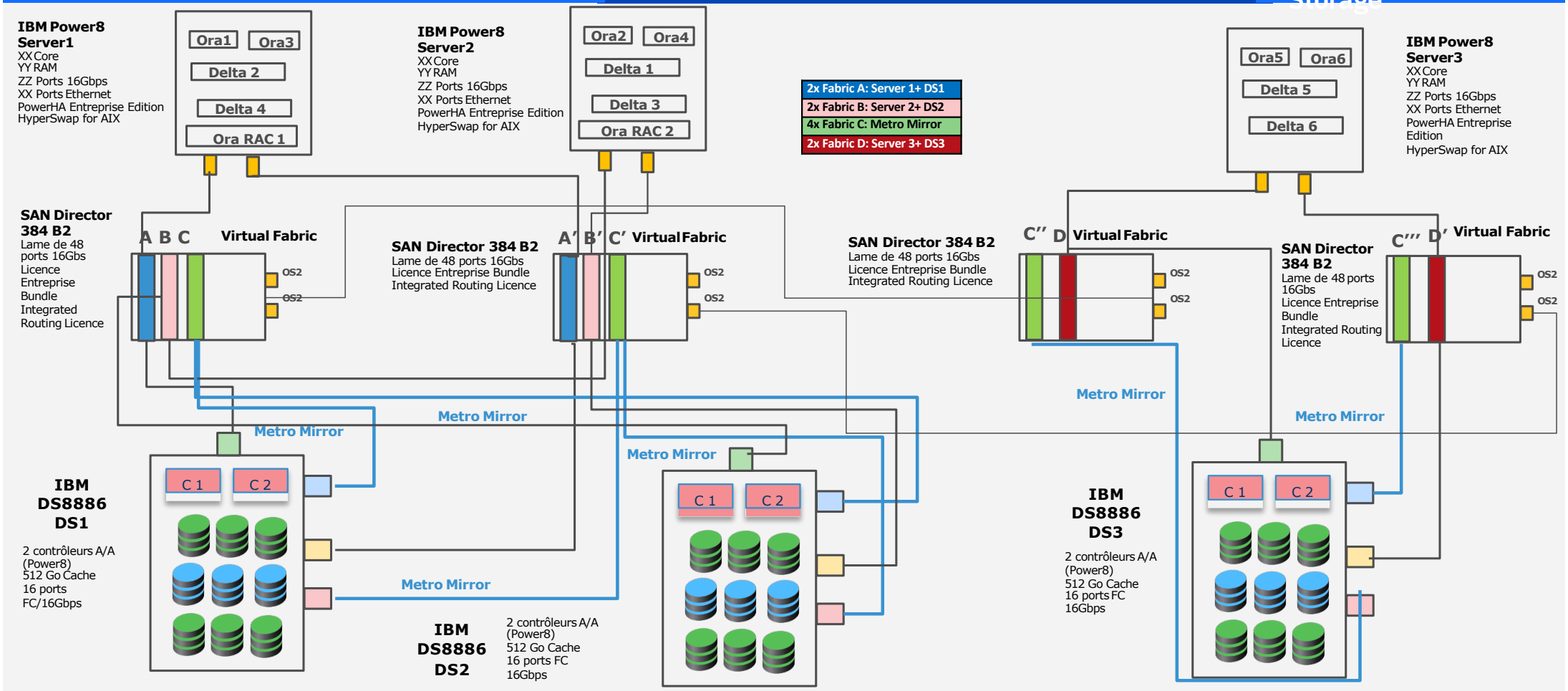






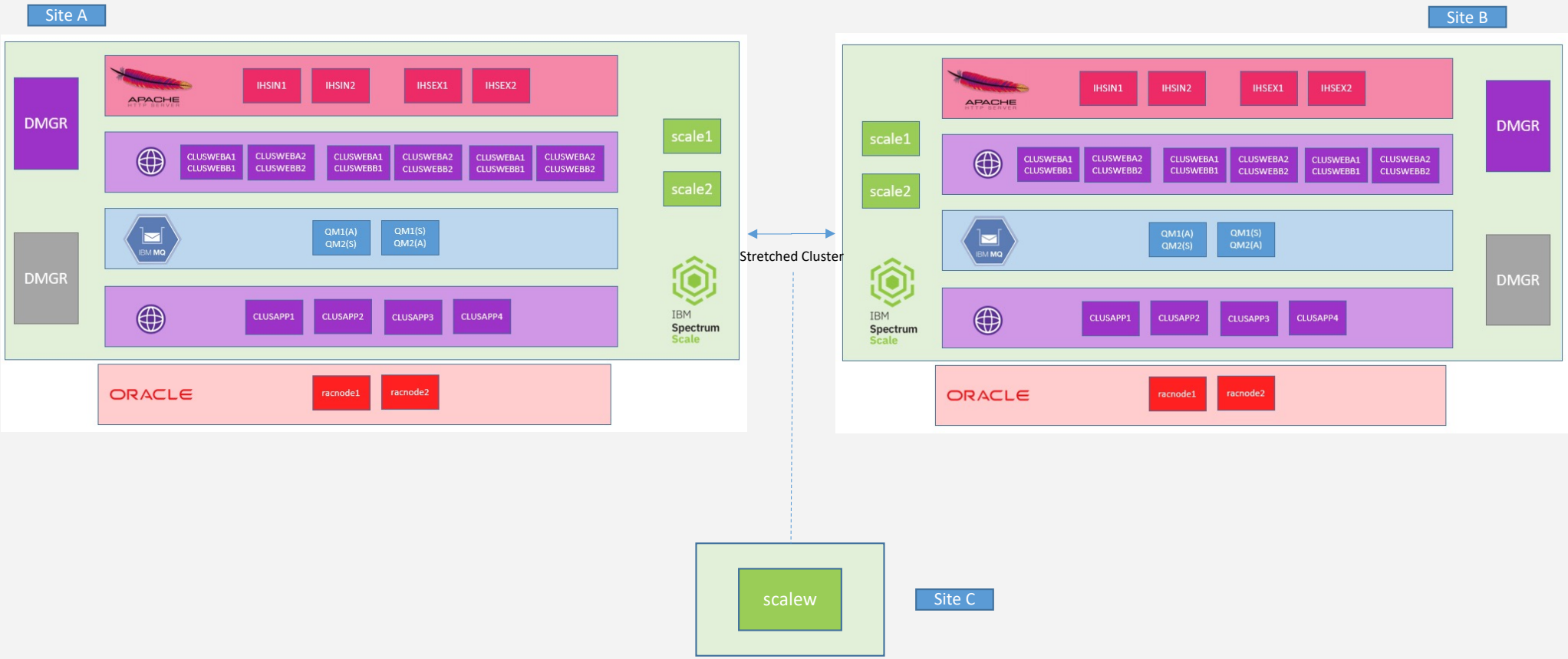
Référence Client (2018) Banque #1 au Maroc : 3 - Sites Architecture (A/A-P) IBM PowerHA SystemMirror + HyperSwap for AIX + DS8000 Multiple Target Peer to Peer Remote Copy

IBM Power on IBM All Flash Array DS8886F Migration Power, Storage, Oracle et Oracle RAC 200 TB All Flash Storage



Référence Client (2019) Banque #2 au Maroc : Architecture (A/A-P) IBM Websphere Application Server, Spectrum Scale et IBM MQ

IBM Power on IBM All Flash Array DS8900 | **Mise en place socle TEMENOS** | **Stretched Cluster**



Référence Client (2021)–**Banque #3** au Maroc
Modernisation de l'architecture middleware

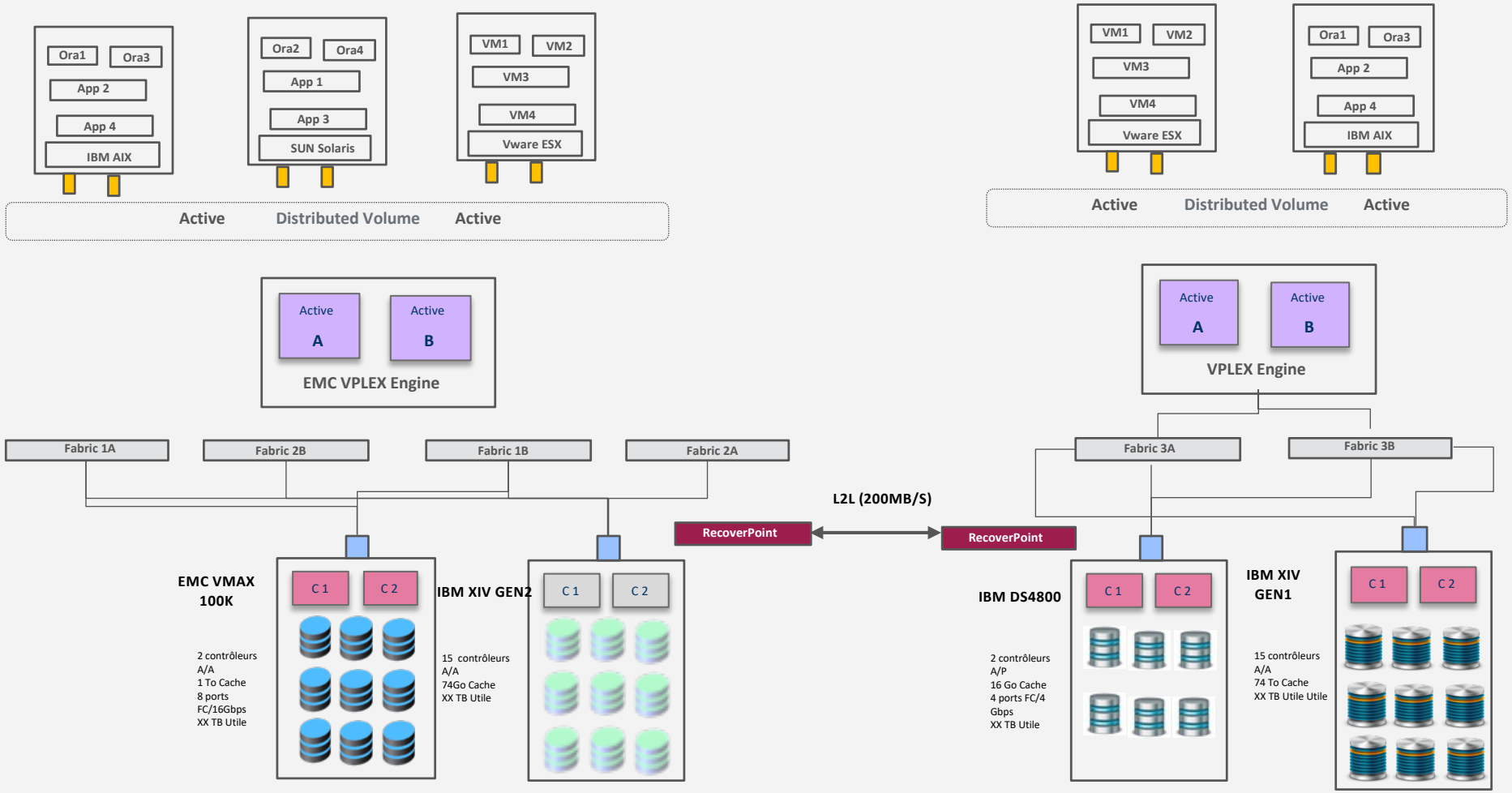
Années: 2021 | **CloudPak for Application / OpenShif** | **Migration WAS , JBOSS**

	Modernize Operations	Modernize Runtimes	Modernize Architecture
Value			Cloud Native
			Agile Delivery
		Cost Savings	
		Technical Debt Reduction	
	Flexible Deployment		
CP4Apps Recommended End State	Application	Application	Microservices
	Liberty	Liberty	Liberty
	VMs	Containers	Containers
		OpenShift	OpenShift
Mod Tools	Transformation Advisor		Mono2Micro

New
Existing

Référence Client 2017–Banque #4 au Maroc- Infrastructure consolidation : Business case

STORAGE CONSOLIDATION & FEDERATION | **MIGRATION AS IS** | **ENGAGEMENT**



Référence(2020): **Banque #5 au Maroc** – Mise en place architecture Hybrid Actif/Actif Cross DataCenter

Années: 2020-2021 | **Mise en place architecture A/A** | **Migration WAS et MQ**

Clusters: **+100**

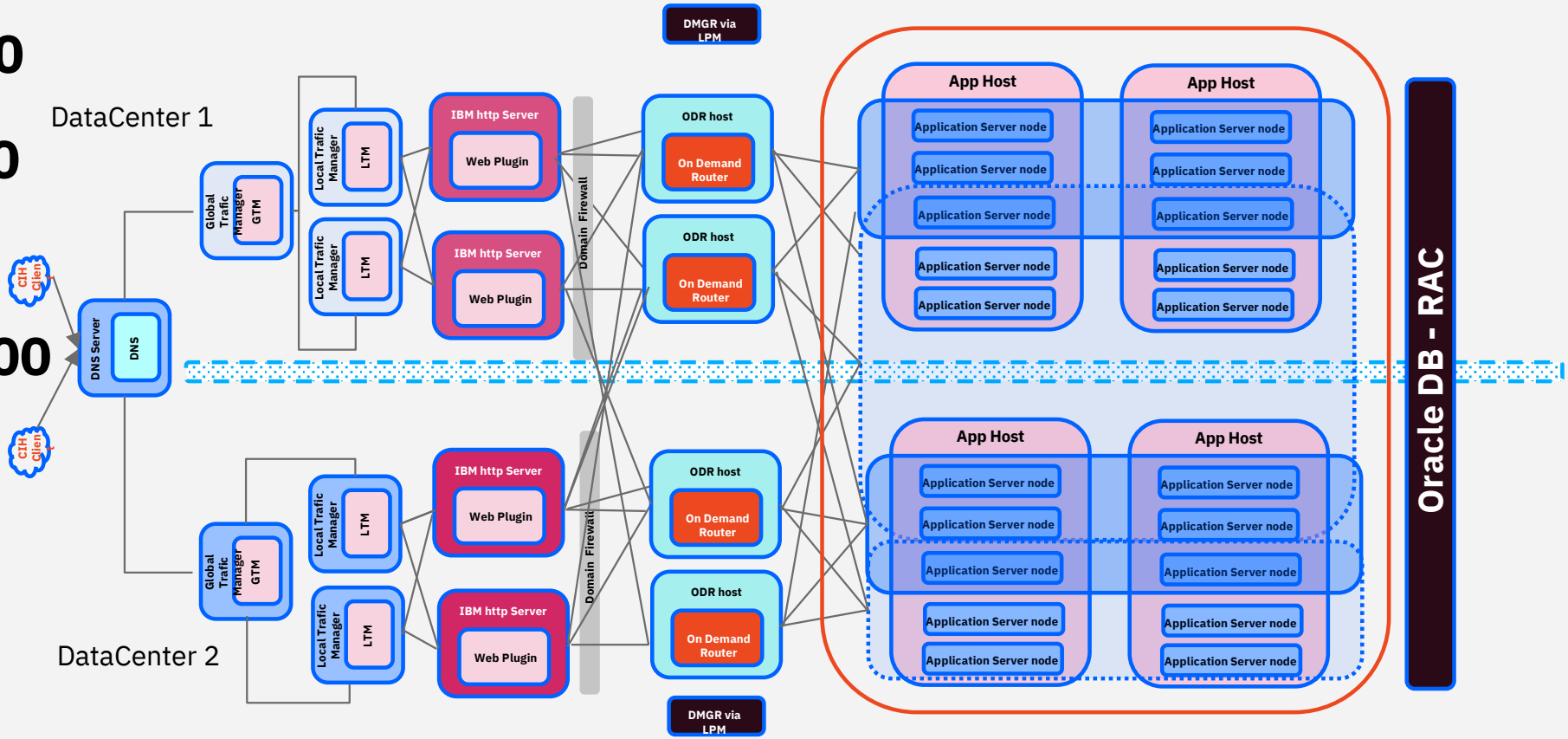
Hosts: **+ 80**

Applications : **+80**

Instances : **+400**

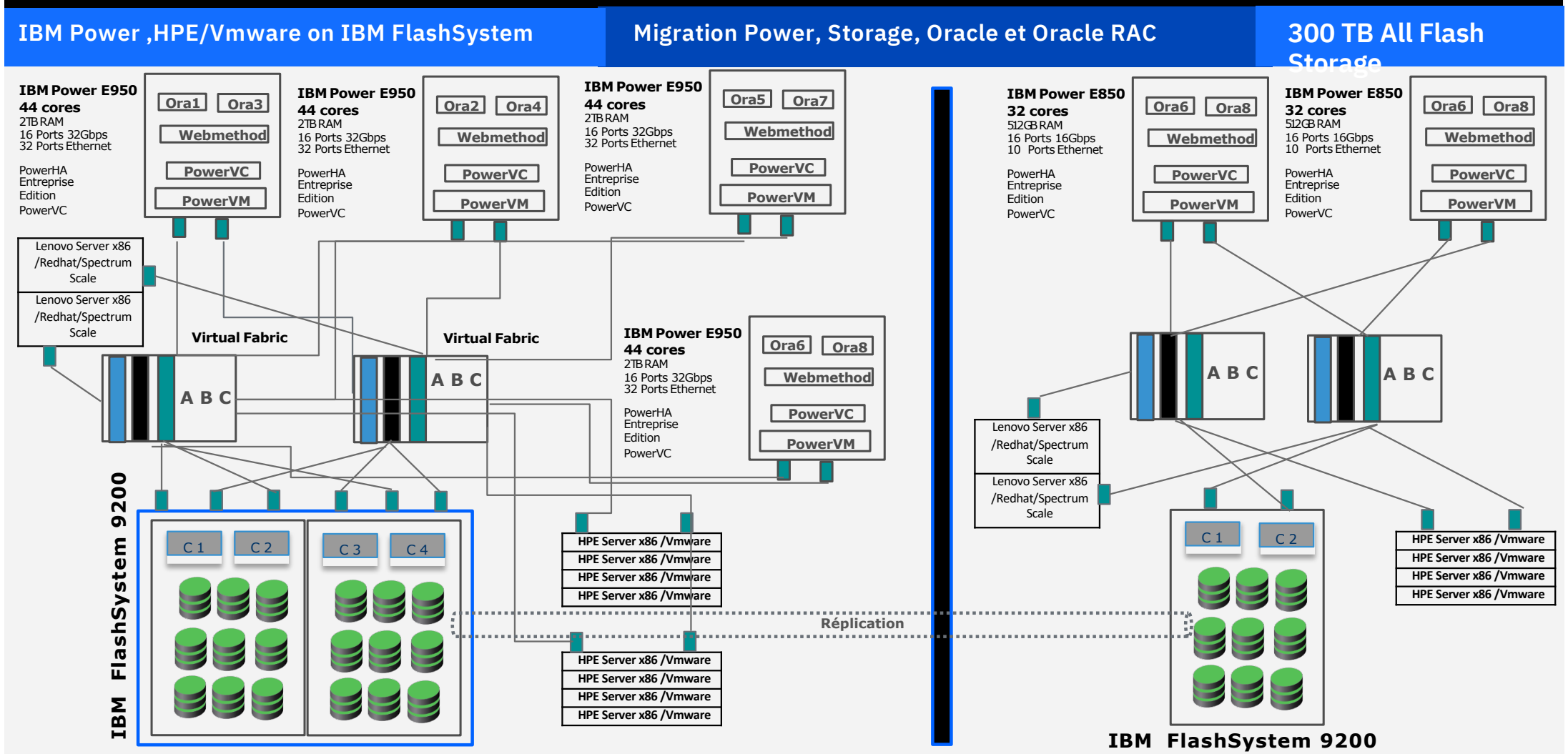
Nœuds: **+100**

QMGR: **+10**



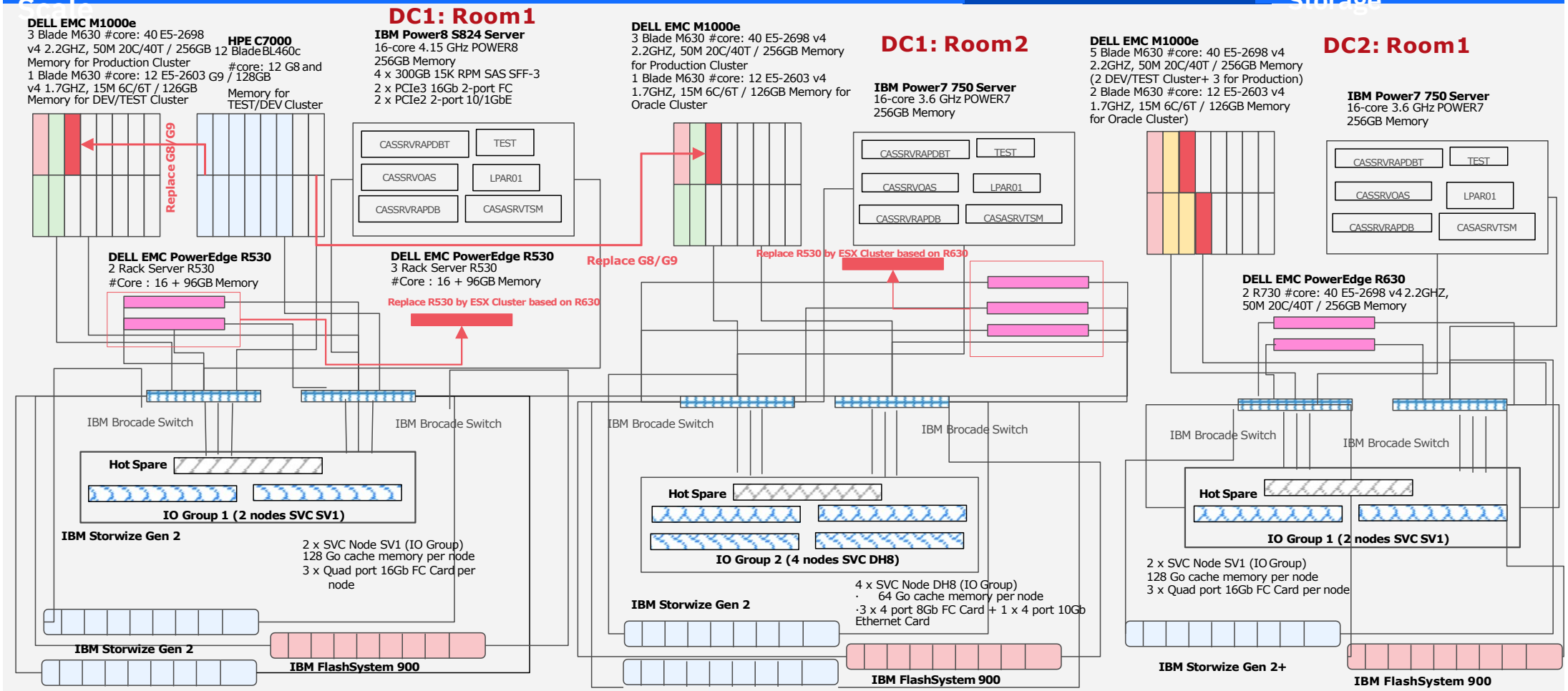
Temps de reprise en cas de basculement (hors corruption des données): quelques secondes

Référence client (2021) : Plus grand Port en Afrique et en méditerranée, 2 - Sites Architecture (A/P) : Tech refresh Architecture Stockage ,Power ,x86 et sauvegarde

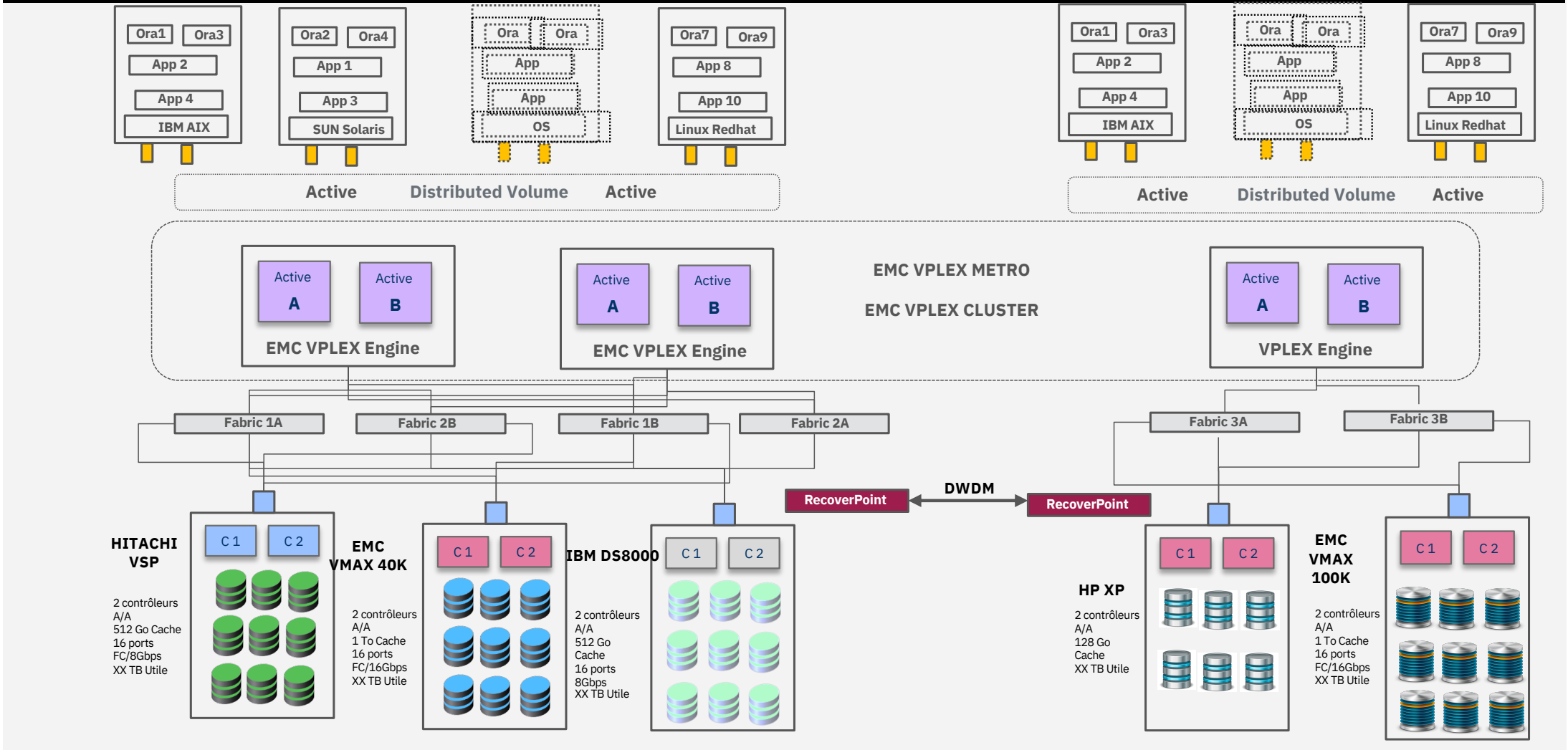


Référence Client (2018): Compagnie Aérienne #1 au Maroc : 3 - Sites Architecture (A/A-P) Enhanced Streched Cluster -

IBM Power, DELL Blade/Vmware on IBM FlashSystem and IBM Scale | **4 Millions Files on Scale** | **200 TB All Flash Storage**

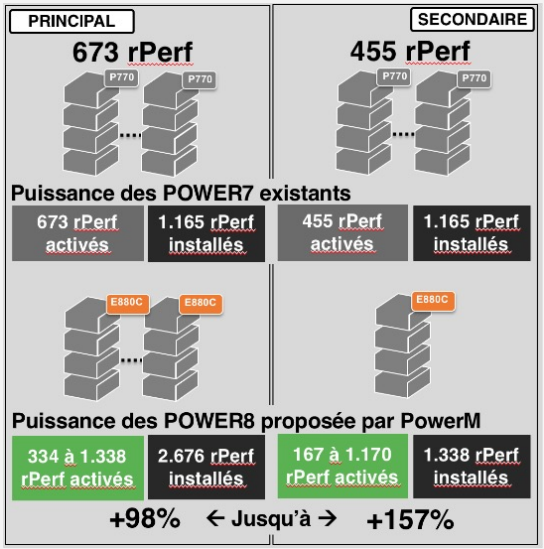


Référence Client (2017) : Opérateur telecom Maroc- Vitualisation plateform de stockage



Référence Client (2018) : Opérateur telecom Maroc- Tech Refresh IBM Power 7 to IBM High End E880C Power 8

POWER CONSOLIDATION



MIGRATION AS IS

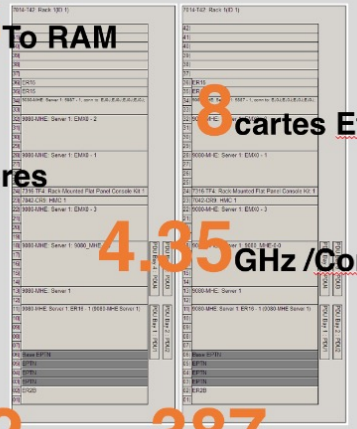
2 serveurs IBM Power E880C identiques avec chacun:
Console HMC avec écran
Rack T42 avec les PDUs necessaires
2 Books de 32 cores 4.35GHz
- Extensible à 4 Books (128 cores)

1.5 To de RAM

I/O
- Répartis sur **2** I/O Drawers
- **20** Cartes Fibre Channel **16**Gb/s Dual-Port
- **8** Cartes Ethernet **10**Gb/s SR Quad-Port
- Paire redondante de contrôleurs SAS RAID
- Carte USB

DVD-RAM
12 disques 387 Go SSD dans un tiroir disque splitté (mode 2)
Licences AIX Enterprise Edition
Licences PowerHA Strandard Edition

1.5 To RAM
8 cartes Eth
2 books **32** cores
4.35 GHz /Core
20 cartes FC
12 disques **387** Go SSD



Un serveur IBM Power E880C
Console HMC avec écran
Rack T42 avec les PDUs necessaires
2 Books de 32 cores 4.35GHz (Extensible à 4 Books)
2.5 To de RAM

I/O presque doublé par rapport à une machine du site principal
- Répartis sur **4** I/O Drawers et slots internes
- **36** Cartes Fibre Channel **16**Gb/s Dual-Port
- **16** Cartes Ethernet **10**Gb/s SR Quad-Port
- Paire redondante de contrôleurs SAS RAID
- Carte USB

DVD-RAM
12 disques 387 Go SSD dans un tiroir disque splitté (mode 2)
Licences AIX Enterprise Edition

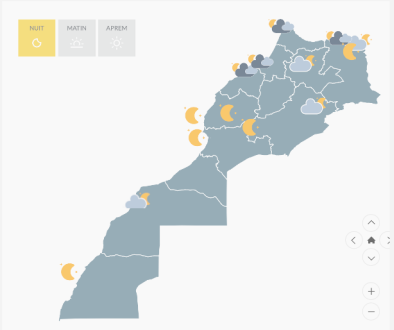
2.5 To RAM
16 cartes Eth
2 books **32** cores
4.35 GHz /Core
16 cartes FC
12 disques **387** Go SSD

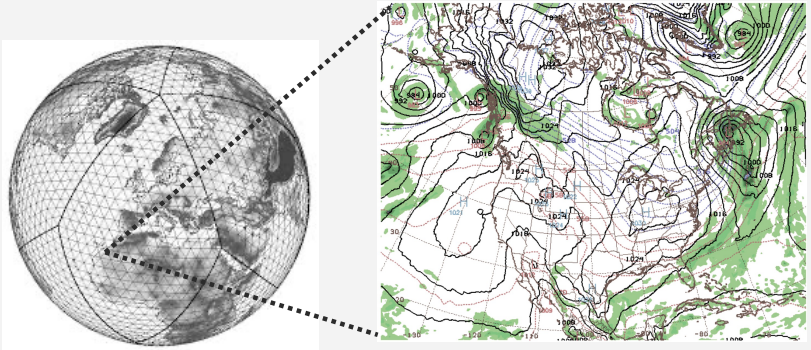
ENGAGEMENT

Client Gov – Plus grand Supercalculateur météologie en Afrique (2020) : Refonte plateforme IA – High Performance Computing HPC

Lenovo Redhat on IBM FlashSystem and IBM Scale | **HPC : 1 PFLOPS/S** | **1 PB All Flash Storage**

+1PFLOP/s





+12 000 cores

+1 PB Storage

+2 PB of data archive

Designed for numerical weather predictions, the new HPC is capable of a quadrillion (thousand-trillion) floating point operations per second !

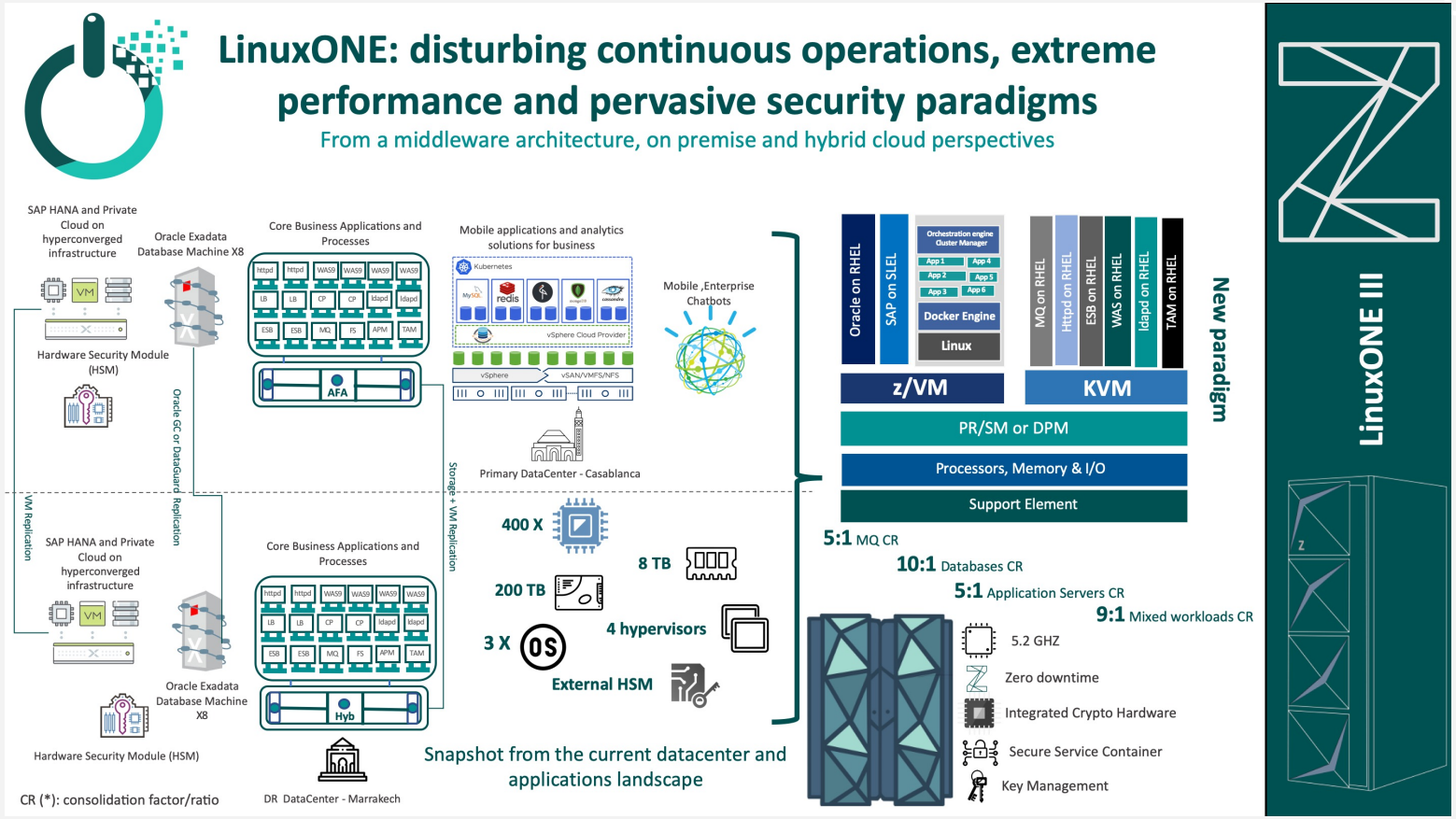
IBM Platinum Business Partner

Client Gov (2020) : Refonte plateforme portail , transactionnelle et analytics

Années : 2020-2021

Architecture Always ON

Migration WAS,MQ,DB2 et Cognos



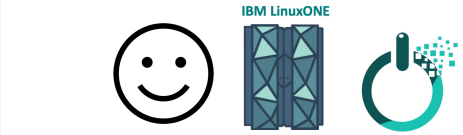
Clusters: **+150**

Hosts: **+100**

Applications : **+50**

Instances : **+30**

Nœuds: **+80**



Estimated TCO for LinuxONE= $\sum$ {(Oracle licenses : 10) + (middleware licenses :5) + (hypervisors licenses and operating system Subscriptions:20) +(Hardware: 5) + (Datacenter:5) + (Application Management:9) + (Infrastructure Management:9) + ((Risk of Downtime + Security Solutions)):10}

Facteur de consolidation

Websphere Portal: **9:1**

IBM MQ: **5:1**

Websphere: **5:1**

Oracle et DB2: **10:1**