adatatribe

your turnkey cloud solution partner

CONTACTS

Managing Director: Tahir Shahid
Email: info@adatatribe.com
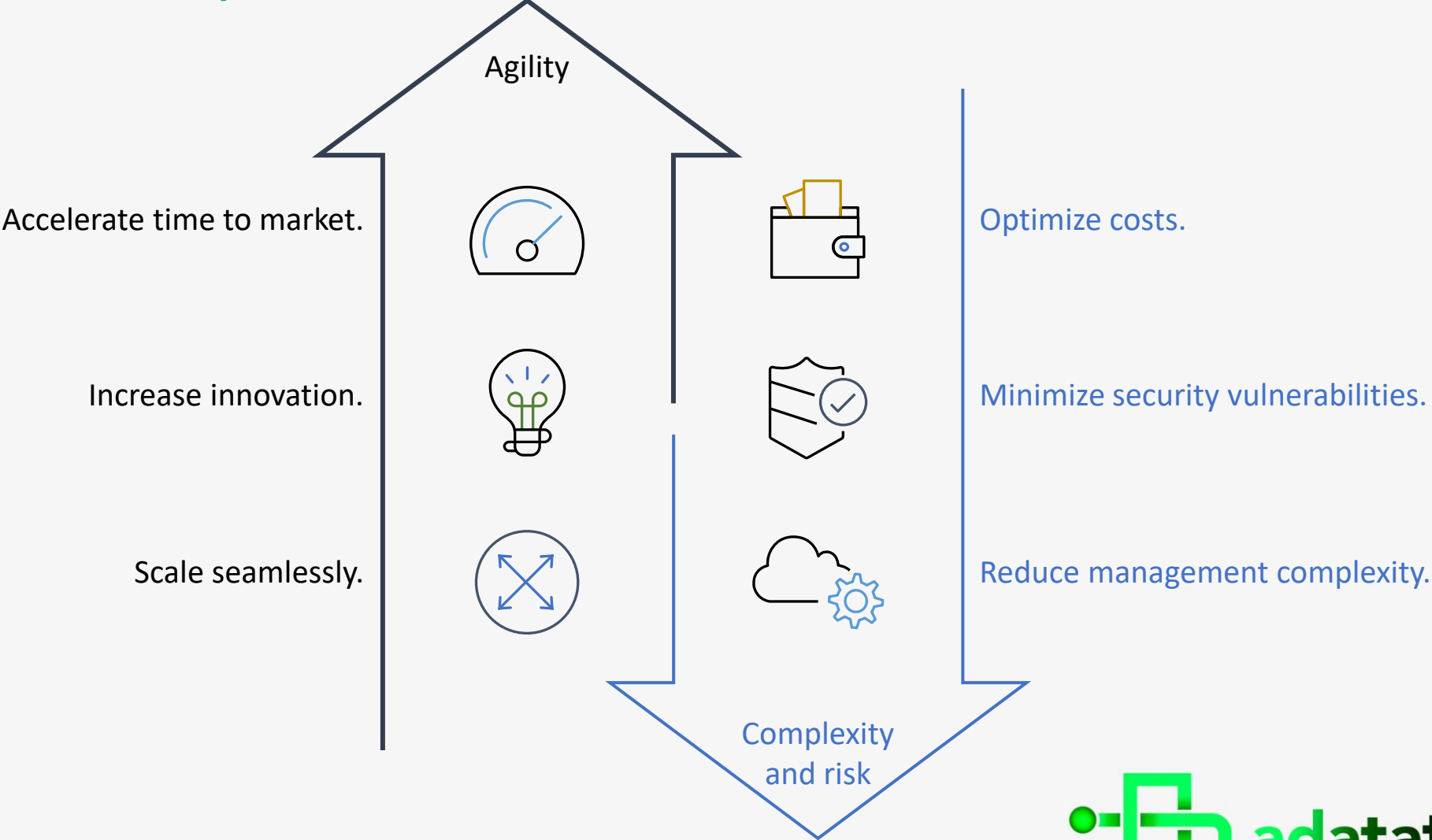Tel: +353 851720885
Website: https://www.adatatribe.com/

adatatribe
your turnkey cloud solution partner

MISSION STATEMENT

We aspire to become your trusted IT Partner by:

1. Abstracting the whole of IT by providing a local Single point of Contact

2. We will be taking responsibility of the entire IT infrastructure

3. Taking care of the complexity of the modern IT infrastructure

4. Guaranteeing fit for purpose fully customised solutions by remaining vendors agnostic

adatatribe
your turnkey cloud solution partner

Why customers move to a Data Tribe?

Agility

Accelerate time to market.

Optimize costs.

Increase innovation.

Minimize security vulnerabilities.

Scale seamlessly.

Reduce management complexity.

Complexity and risk

adatatribe
your turnkey cloud solution partner

A Data Tribe service categories

Networking and content delivery

Database
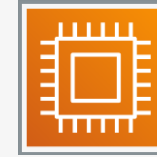

Security identity and compliance

Management and governance

Storage

Cost management

Compute

Containers

Analytics

Customer enablement

Developer tools

Customer engagement

Internet of Things (IoT)

Application integration

Migration and transfer

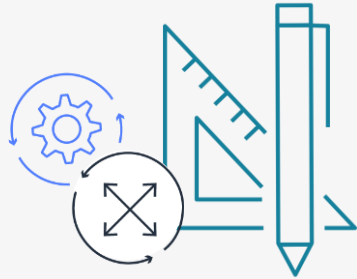Machine learning

Media services

Blockchain

End user computing

amazon web services

Microsoft Azure

Google Cloud

A Data Tribe Architect responsibilities

Plan

- Set technical cloud strategy with business leads

- Analyze solutions for business needs and requirements

Research

- Investigate cloud services specs and workload requirements

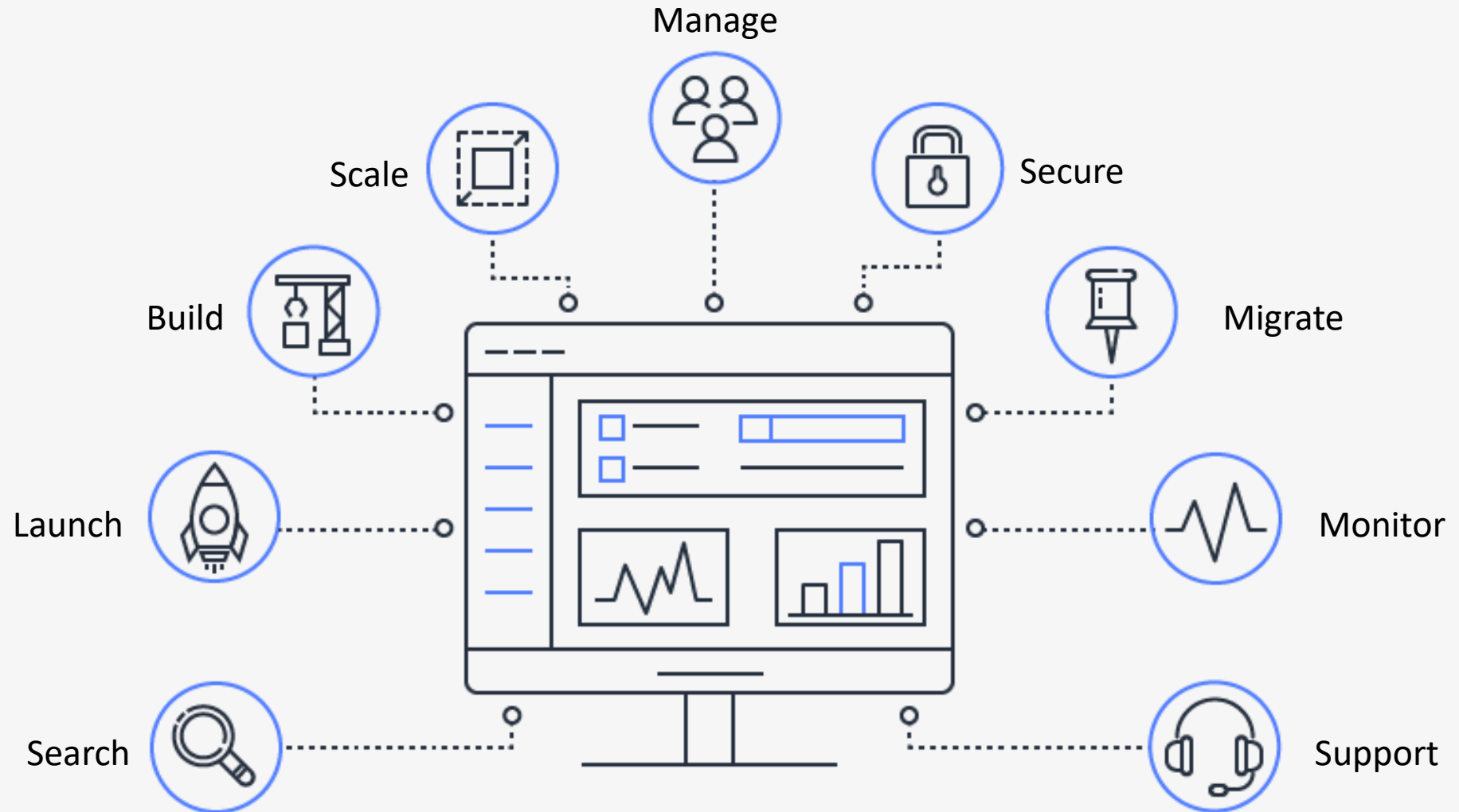- Review existing workload architectures

- Design prototype solutions

Build

- Design the transformation roadmap with milestones, work streams, and owners
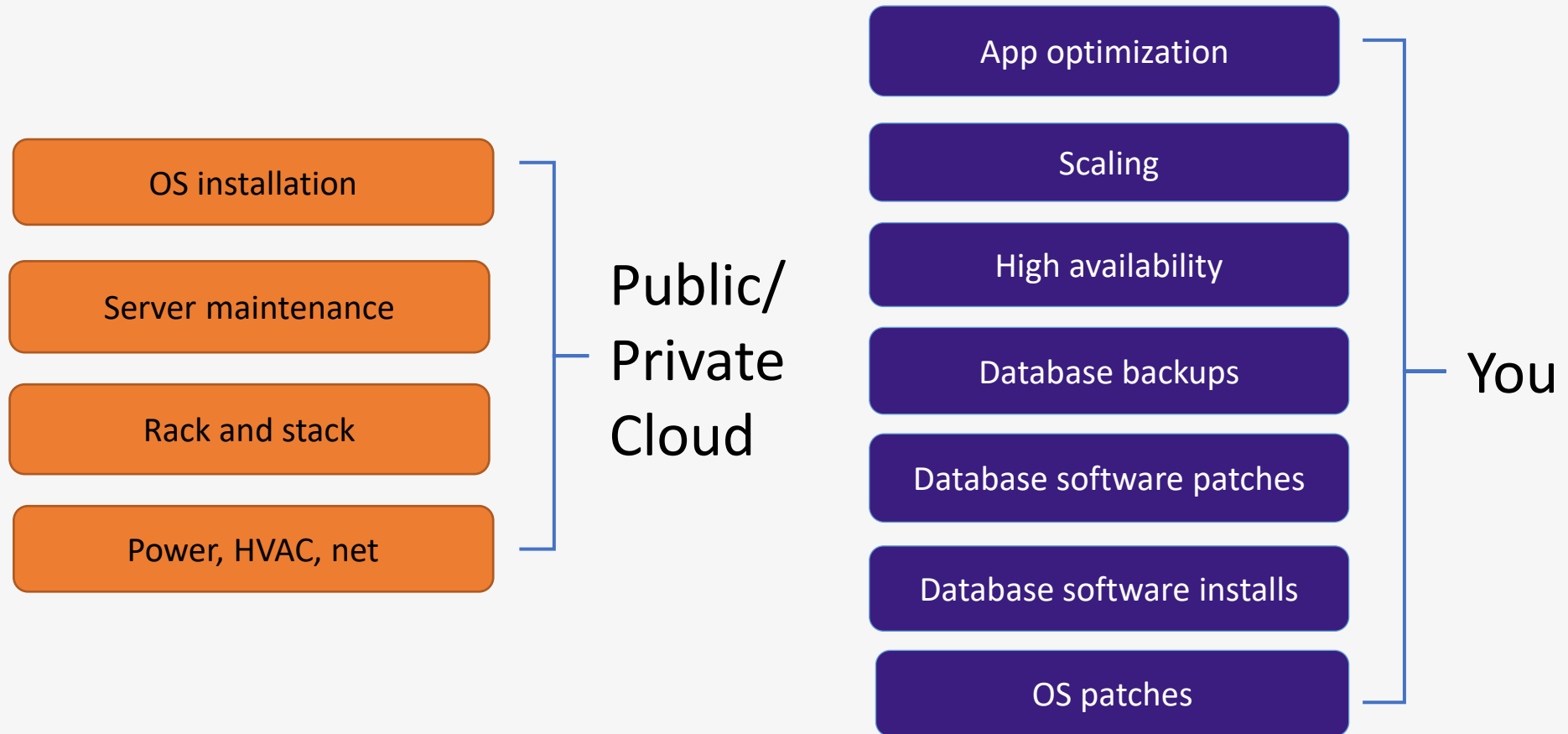
- Manage the adoption and migration
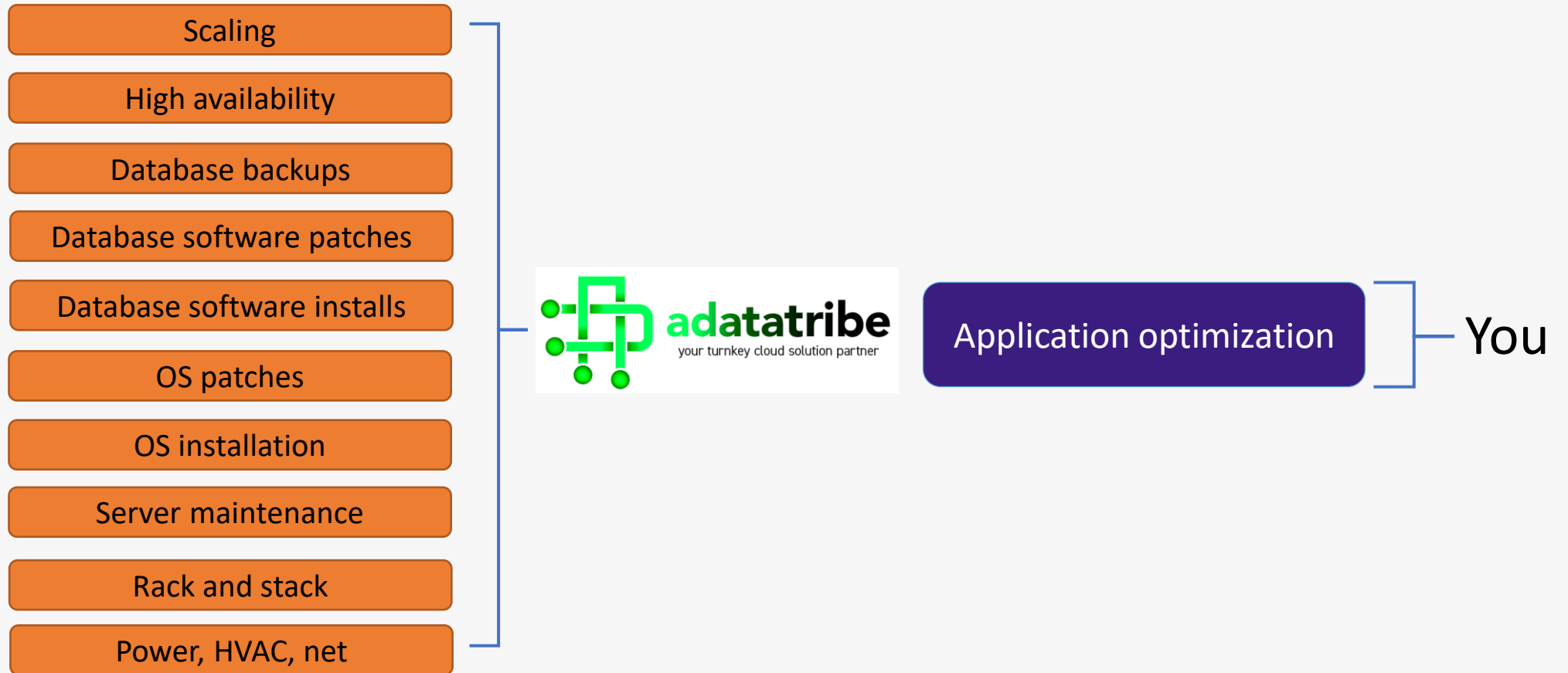
a Data Tribe Responsibility

Unmanaged Services
(Traditional approach)

OS installation

Server maintenance

Rack and stack

Power, HVAC, net

Public/
Private
Cloud

App optimization

Scaling

High availability

Database backups

Database software patches

Database software installs

OS patches

You

a Data Tribe Managed Service

(Cloud Operating Model)

Scaling
High availability
Database backups
Database software patches
Database software installs
OS patches
OS installation
Server maintenance
Rack and stack
Power, HVAC, net

adatatribe
your turnkey cloud solution partner

| Application optimization | You |

a Data Tribe Architecture pillars

Security
- Apply at all layers
- Principle of least privilege
- Multi-factor authentication (MFA)

Cost optimization
- Analyze and attribute expenditures
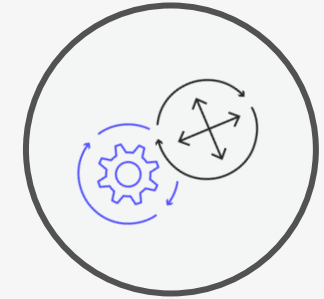- Cost-effective resources
- Stop guessing

Reliability
- Recover from failure
- Test recovery procedures
- Scale to increase availability

Performance efficiency
- Reduce latency
- Use best of class architecture
- Incorporate monitoring

Operational excellence
- Perform operations with code
- Test response for unexpected events

CONSULTING SERVICES

Consulting Services – Long Term

Data Center Services

Database Services

Cloud Services

Long Term Services

We offer diversified IT consulting services aimed to assist our clients with their business vision and objectives. We work hard to meet your requirements at a cost-effective services performed by highly efficient skilled IT experts.

Our services encompasses IT strategy, development, implementation, and management.

Data Services

Professional Services

Business Services

Data Center Related Services

Full analysis of current data center high abailability, operational recovery, cyber recovery, disaster recovery, and business continuity. Provide detailed best practices and implementation roadmap to optimize resiliency.

DATA CENTER RESILIENCY

A service to improve and optimize IT infrastructure employing technologies that meet organization vision. Detailed analysis outlining action plans and industry proven engineering solutions that are aimed to enhance data center agility and scalability

DATA CENTER TRANSFORMATION

Thorough analysis of the existing data center and targeted future state providing full hardware and software implementation steps, migration plan, risk mitigation, and runbooks.

DATA CENTER MIGRATION

An engagement that provides full data center strategy detailing priorities, challenges and gaps to align IT department with the business objectives and organization vision and mission.

DATA CENTER STRATEGY

Database Related Services

DATABASE OPTIMIZATION

An accelerated and methodological workshop to evaluate Oracle environment optimal performance, best practice compliance, and industry guidelines implementation. Full database observations and optimization recommendations.

DATABASE CONSOLIDATION

Application classification is a service that defines business importance and criticality identifying resiliency gaps in infrastructure and data protection. Best practices recommendations and roadmap.

DATABASE REPLATFORMING

Provide current and future state architecture outlining, future architectural design, optimizing database resources and licensing svaings. Full implementation and migration plan.

DATABASE PROFILING

Full dashboard of all Oracle databases in production.. A view of the database environment is generated to identify gaps and build a strategy that meets management objectives.

Application Related Services

APPLICATIONS LANDSCAPE

Full discovery of organization applications landscape providing detailed architecture, map, and interdedependencies. Discovery provides current platforms and business functionality. Future state recommendations and enhancement roadmap

APPLICATIONS CLASSIFICATION

Application classification is a service that defines business importance and criticality identifying resiliency gaps in infrastructure and data protection. Best practices recommendations and roadmap.

APPLICATION REPLATFORMING

A service that provides recommendation and roadmap to replatform and modernize applications to agile and scalable infrastructure that meets growing and business objectives and requirements.

APPLICATION ASSESSMENT

An assessment of applications identifying gaps to meet organization technology vision and strategy. Detailed recommendations and implementation roadmap and plan.

Business Objectives Related Services

An evaluation of existing or new BC of an Oracle environment to protect data at all levels high availability, logical corruption, disaster recovery and backup recovery. Methodological workshops using proven framework, best practices, regulation compliance and indust...

BUSINESS CONTINUITY

An engagement to determie the criticality of business activities and associated resource requirements to ensure operational resilience and continuity of operations during and after a business disruption. RPOs and RTOs are identified for each business operation

BUSINESS IMPACT ANALYSIS

Full servuy of the organization vision, priorities, challenges, and concerns from business point of view. An analysis report providing a full strategy and roadmap to direct the organization to meet its objectives.

DISCOVERY SERVICE

An angagement identifies IT challenges and priorities. An analysis of the discovery findings are compiled to determine strengths, weaknesses and gaps outlining key point initiatives to optimize business strategies and operations.

IT STRATEGY DEVELOPMENT

Consulting Services – Short Term

Short Term

Services

IT Services

Outsourcing

Strategies

We offer diversified IT consulting services aimed to assist our clients with their business vision and objectives. We work hard to meet your requirements at a cost-effective services performed by highly efficient skilled IT experts.

Our services encompasses IT strategy, development, implementation, and management.

Academic & Training

Training

Human Resources

Consulting Services – Short Term

BC Readiness Accelerator

Oracle License Optimization

Application Classification

RAC Health Check

Database Modernization

Database Profiling

DB Optimization Assessment

Consolidation Jump Start

Database Replatforming

Database As A Service

Exadata Benefit Check

Database Profiling

Cyber Resilience

Our Expertise

1. STRATEGIC SECURITY CONSULTING

2. SECURITY ASSESSMENT AND COMPLIANCE

3. CYBER TECHNOLOGY EXPERTISE

4. CYBER OPERATIONS AND RESILIENCE

5. INVESTIGATION AND CYBER INCIDENT RESPONSE

Advisory

- **Cyber Security Road-map**
  - **Security Posture Improvement**
  - **Strategic, Operational plan**

- **Security Assessments**
  - **Penetration Tests**
  - **Web and Mobile App Test**
  - **Red Team**

- **Governance and Compliance**
  - **NIST**
  - **CIS**
  - **ISO**

Technology

- **Security Design and Architecture**
    - **Data Center**
    - **OT/IoT**
    - **Cloud / Hybrid**

- **Deployment and Integration**
    - **High-Low Level Design**
    - **Best practices Delivery Methodologies**

- **Support and Maintenance**
    - **On-site / Off-site expertise**

Vigilance

- **Security Operation Center Design**

- **Security Analysis and Monitoring**

- **Threat Intelligence**

Evidence

- **Incident Response Plan**

- **Threat Hunting**

- **Forensics and Investigations Simulation**

Technology Partners

NETWORK & SECURITY

Secure LAN/WAN/Wireless

- Provide a secure LAN solution (Design, Implement and Support)

- Expertise in Secure Wireless Solutions

- Secure WAN connectivity, cloud communication (Azure, Amazon, Google etc)

adatatribe
your turnkey cloud solution partner

Software Define Networking (SDN/SDWAN)

- Software defines Networking Solution

- Provide end to end Network Visibility

- Centralized cloud-based management

- Secure Encrypted SDWAN (VPN) communication between Branch and DC/Cloud

Network Security

- Parameter Firewalls, Cloud firewall solution PaloAlto & Fortinet

- Threat Protection, Vulnerability Management, DD,OS and DNS protection

- End point Protection, Ransomware protection, Secure Remote access

- ZTA (Zero Trust Architecture) secure Network Provisioning and full network visibility

- Centralize Policy implementation and monitoring

- Cortex XDR (Extended Detect and Response)

- SASE (Secure Network Service Edge)

Network Review and Security Audit

- Network Review Analysis and Troubleshooting

- Security Auditing, Network Assessment, Pen testing

- Secure Access Control Policies review

- Compliance and Data protection

- Network Confidentiality, Integrity, and Availability
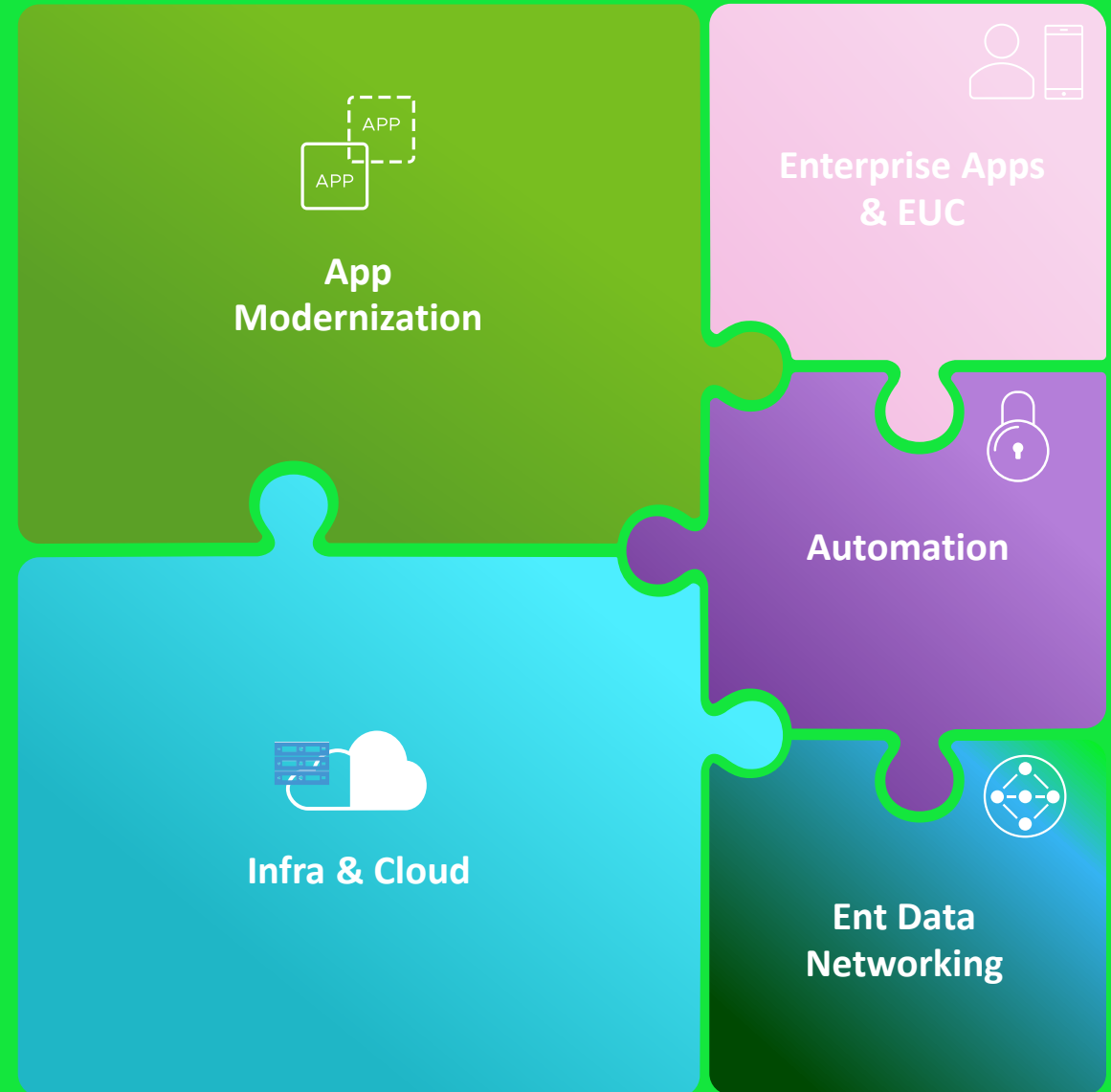
- Business Continuity and DR Plan

VIRTUALISATION

Strategy and Focus

- **Accelerating Digital that helps customers create a technology roadmap & drive an impact on their strategic ambitions**

App Modernization

Enterprise Apps & EUC

Automation

Infra & Cloud

Ent Data Networking

Digital Workspace & VDI
End point management
Messaging, Email, IAM
NOC & SOC Services
Managed Services & Security
Validated Solution Designs
Assessment Services
Hybrid Cloud Integration Services
Implementation Services
Training Services

Enterprise Apps & EUC

Services

Cloud Management Layer

Management & Monitoring , Billing, Automation, Orchesrtration, Pipeline automation.

vROPS & Wavefront
Log Insight
Automation
DevOps & Autmation
SD-WAN, SASE, ZTNA, LB
Containers
Kubernetes
Platforms

Central Cloud Management Platform
Network & WAN
Modern Applications & DevOps
Emerging Tech

Private/Public/Hybrid Cloud
End to End Professional Services.

Cloud Layer

Virtualization, Software Define Networking, Multi Cloud Environment, Cloud Migration

SaaS   SaaS   SaaS

Server Platforms
Software Define Storage

ORACLE CLOUD INFRASTRUCTURE
amazon web services™
Alibaba Cloud
HUAWEI CLOUD
Azure

Hosted
Storage Replication
BCDR

Infra Mgmt
Virtualization
SDS
SDN
Cross DC Connectivity

On-Premises Datacentre

Storage Replication
Data Center #2
BCDR

VMware Expertise

VMware Workspace One

- SaaS and on-prem deployment and configurations
- Android and IOS integrations
- Google play store and Apple integrations
- Application management and pushing to users' devices.
- SEG, UAG VIDM configuration and management

VMware vSphere, vROPS, vRLI, vRNI

- Deployment & Configuration of Cluster
- HA,DRS,FT,SDRS configurations.
- VM performance Optimization
- VM health check
- Physical to virtual migrations
- VM Encryption configuration
- ESXi & vCenter Upgrade and updates
- Customized dashnoard and reports
- 24x7 Monitoring and troubleshooting incase of issues

VMware vRealize Automation & Orchestration

- Deployment and configurations
- Integrations with AWS, vSphere, Azure, NSX
- Customized workflow creation
- Blueprints creations
- 24x7 Support and Services

VMware Tanzu

- Tanzu wavefront & observability configuration
- Configuration of Harbor registry and private chartmeseum repo
- Installation and management of Tanzu CLI
- Migration of Workloads to Tanzu
- Migrate Tanzu Greenplum to AWS
- 24x7 Support and Services

VMware Professional Services

VMware NSX-T

- Design, Deploy and configuration
- Teir0 and Teir1 configuration
- Micro segmentation of VMs to Application level.
- AVI LB/ Advance LB configurations
- Firewall configuration
- Firewall rules migrations from Physical devices or to NSX-T
- NSX-v to NSX-T migration
- Writing scripts to automate migration configuration & reporting functions.
- 24x7 NSX specialist Support

VMware Horizon

- Terminal Devices Support
- Connection Server, Security Server, App Volume, deployment and configurations
- IAM – Identity and Access Management
- 24x7 L-3 Support and Services
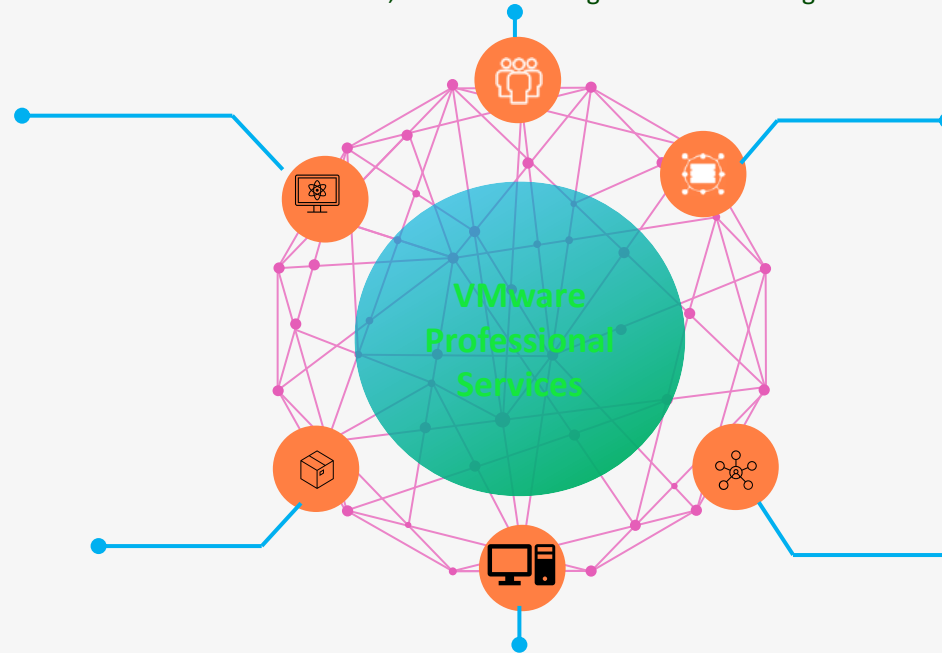
Managed Services– Methodology

Assess

customer's business requirements and capability compared with operations best practices

Manage

measurable, repeatable and continually improved operations/delivery

Design

People, process and technology to deliver business objectives and provide a practice roadmap

Monitor

the customer's capability to provide continual improvements in efficiency and risk coverage

adatatribe
your turnkey cloud solution partner

Infrastructure Project Based Services

Certified Resources

VCP – Datacenter Virtualization 6 & 7
VTSP & VSP - vSphere

VCP -NSX-T

VTSP NSX-T

VCP – Horizon
VCP – Workspace one

Certified Kubernetes Administrator

VCP - vRealize Automation

VCP- vRealize Operations

Terraform associate

INFRASTRUCTURE AS CODE

Infrastructure as Code
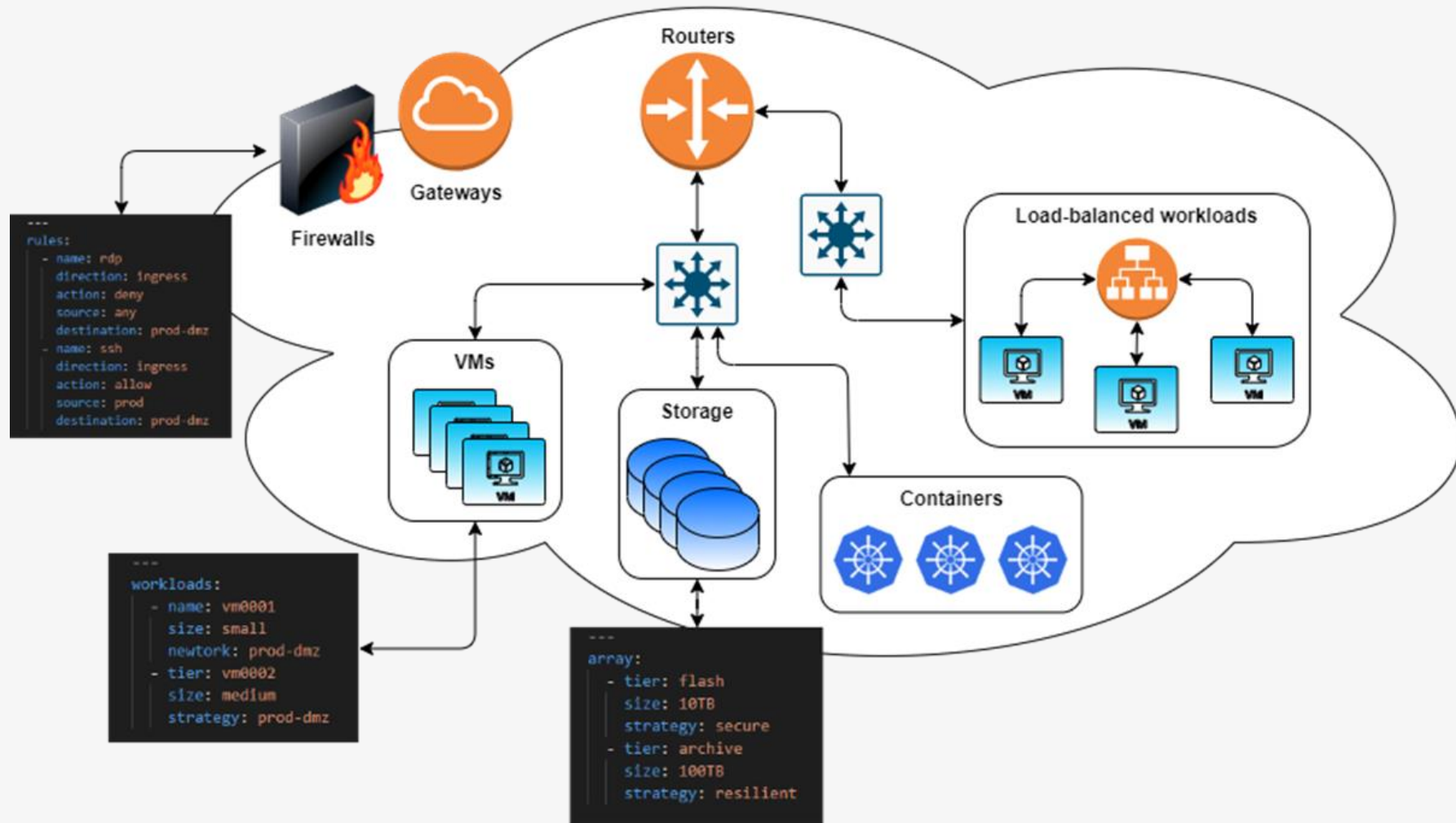
What is IaC?

- Contracts & rulesets
  - Declarative
  - Defined as pseudo-code
  - Software-defined

- Abides by software dev principles
  - SDLC (Dev Lifecycle)
  - Use of SCM (Source Control)
    - Change tracking & version control
    - Promotion management & pipelines

- Prescriptive security
  - Templates & patch automation
  - Dependency and security scans
  - Declarative security rules

- **TLDR; (in a nutshell)**
  - Storing configuration contracts as text files
  - Automating the testing and integrations around those configurations

```yaml
---
- template: Windows2019_Server
- hardware:
    cpu_sockets: 2
    cpu_cores: 2
    memory_gb: 16
    disks:
      - letter: C
        label: "OS"
        size_gb: 120
        type: "ntfs"
        tier: gold
      - letter: D
        label: "Archives"
        size_gb: 200
        type: "ntfs"
        tier: silver
    networks:
      - name: "seg-test-10/24"
        type: static
        ip: 10.10.10.136/24
```

Before IaC...

- Fragile software stacks

- Manual deployment

- Undocumented infrastructure

- IT SLAs

Goals

- Consistency

- Idempotence

- Declarative

- NoOps

Benefits

- Deploy continuously
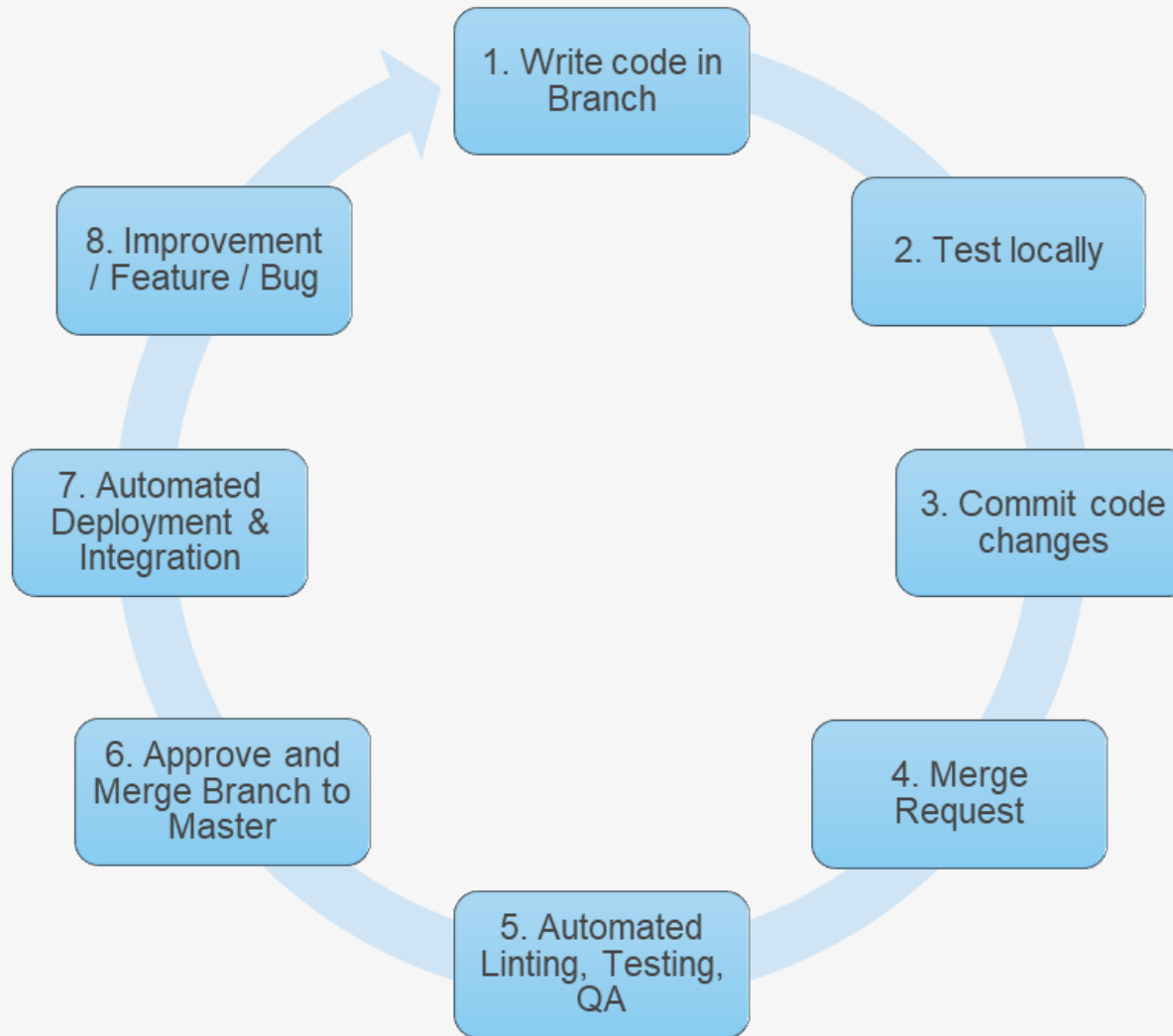- Dev/production parity
- Short feedback loops

How to do IaC

- Version control everything

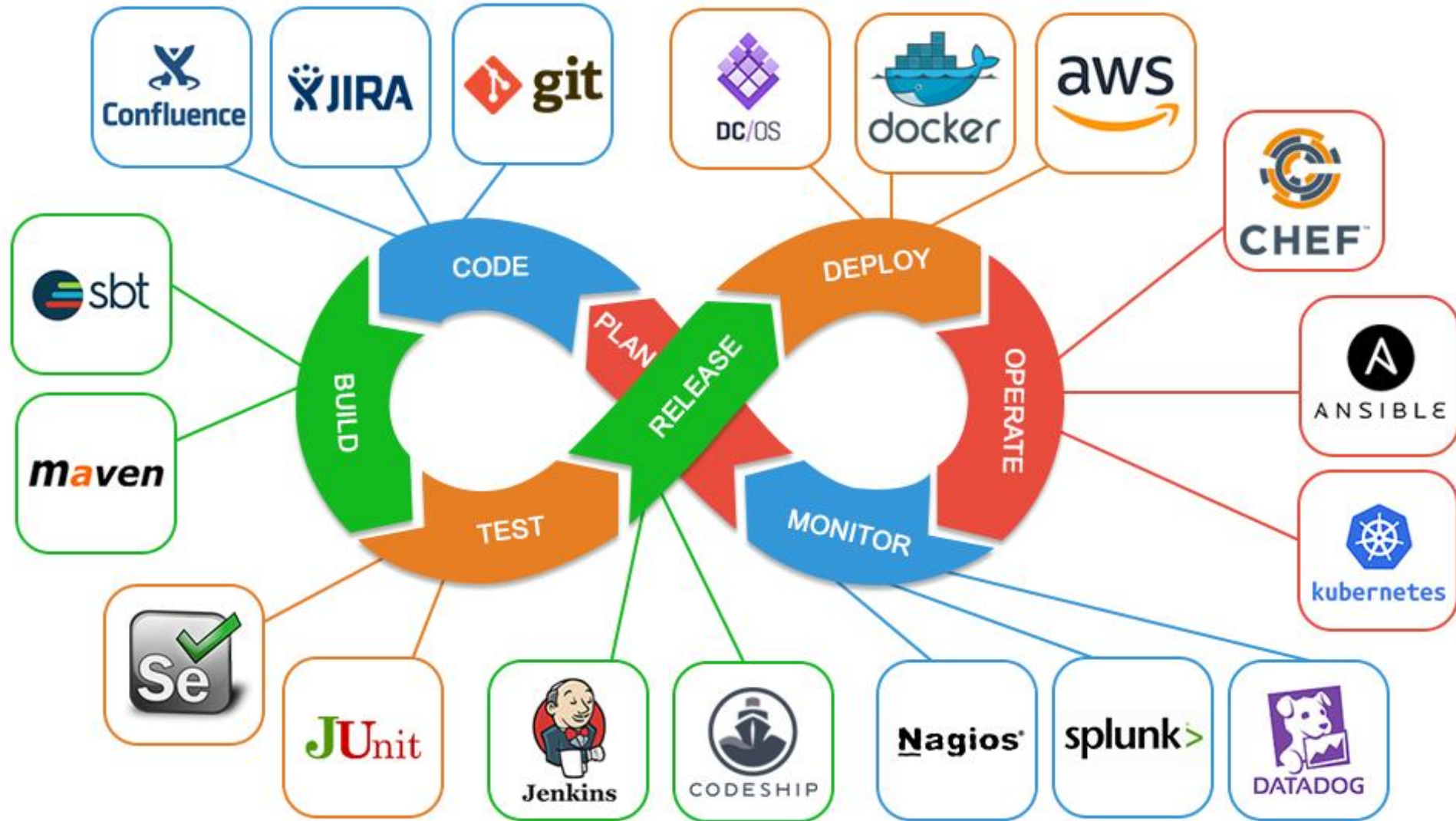- Incremental changes

- Test driven

- Self documenting

Software Development Lifecycle

DevOps Sample: Flow and Tools

VIDEO PROTECTION

Video Protection System

WE MAKE THE WORLD SEE

Empowering people, businesses and societies with data-driven video technology

We provide actionable insights from video data through the perfect combination of your cameras and sensors and our open platform software and analytics – always with a responsible mindset and a people-first approach.

Why a Data Tribe use your Video Protection System?

Fully configurable and future-proof

XProtect's open platform architecture allows it to be tailored, scaled and updated as your needs develop.

Reliable performance and safety

As well as minimizing downtime and improving ROI, our platform offers peace of mind with GDPR and FIPS 140-2 compliance.

Collaborative and service-minded

Build the best-performing video solutions using the products, services and expertise of Milestone and our global partner network.

Responsible and people driven

Employ video technology ethically and compliantly while exploring new ways to improve people's safety, happiness and health.

Architecture Pyramid of a Video Protection Project

Layer 5
Video Supervisor

Layer 4
Image Analysis

Layer 3
Storage

Layer 2
IP Network

Layer 1
IP Camera
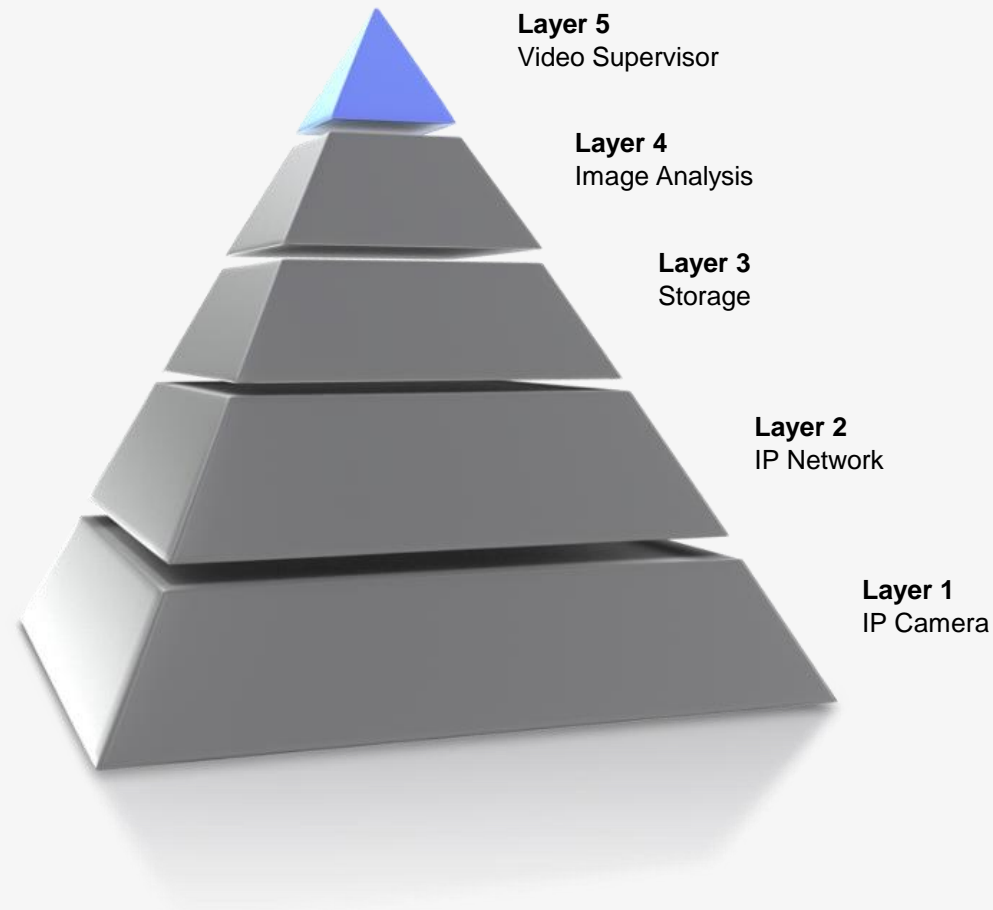
Network Transport and Bandwidth (1/2)

An essential element of all video protection project is the correct sizing of the network and the associated bandwidth

Bandwidth is determined based on:

- Image Resolution

- Number of caméras

- Number of images per second

- Compression (Motion JPEG, MPEG-4, H.264)

- Complexity of the image

- Codec algorithme of the caméra

Network Transport and Bandwidth (2/2)

Bandwidth is made out of different streams:

- Live video stream

- Recorded video stream

Basic bandwidth requirement can be calculated using the following formula::

⇨ Image Resolution (average pour MPEG 4) x Nbre of image/sec x Nbre of caméras

Network optimization is achieved by our solutions using the protocole IGMP V2 Multicast, which initiates transmission only when the video is active. This approach allows for the video transmission to take place without saturating the network

Storage Requirements of our Video Protection Systems (1/2)

The rise of the IP video protections systems has exponentially increased the need of networked storage. This has raised challenges in terms of the type of storage these types of files should be stored and the amount the space it requires and the retention periods.

The video streams are directed in real time onto servers that guarantee the recordings and handles any alarms or events.

« Events » covers access control, intrusion detection, video surveillance. Specialised application run on the servers to manage the storage aspect of the solutions.

As a standard the video protection solution record on the basis of 24x7x365 in Full HD (1920x1080) de 2MP, de 25 images per seconde.

Recording Server

Smart Client

Request video

SSD

Video

Camera Network

Client Network

Live video (optional)

Recorded video

Storage Sizing (1/2)

The éléments to consider in order to size the storage need of a particular project are the following:
- Number of caméras
- Number of daily recording hours
- Data retention period
- Event driven recording (movement detection …) or continuous
- Images frequency
- Compression Format
- Image Quality

The type of video compression used is a major factor in terms of amount of storage requirements.
H.264 is by far the most efficient compression format currently available as is allows a data reduction of up to 80 % for digital content compare to JPEG and 50% compare to MPEG-4 (Part 2), without affecting image quality.

Keeping the format in mind video streams cannot be calculated the same way for MJPEG, or MPEG4.
For JPEG, image size is set whereas for MPEG4 image size depends on the motion.

Storage Sizing (2/2)

Sizing of the video recording is performed using the following:

- For MPEG 4 compression :

⇨ Strems approx. (en Mbit/s) / 8 (bits in one Byte) = MB/seconde

⇨ MB/s x 3600 sec per hour = Mo/hour

⇨ MB/h x Nbre hours par jour / 1024 = GB/day

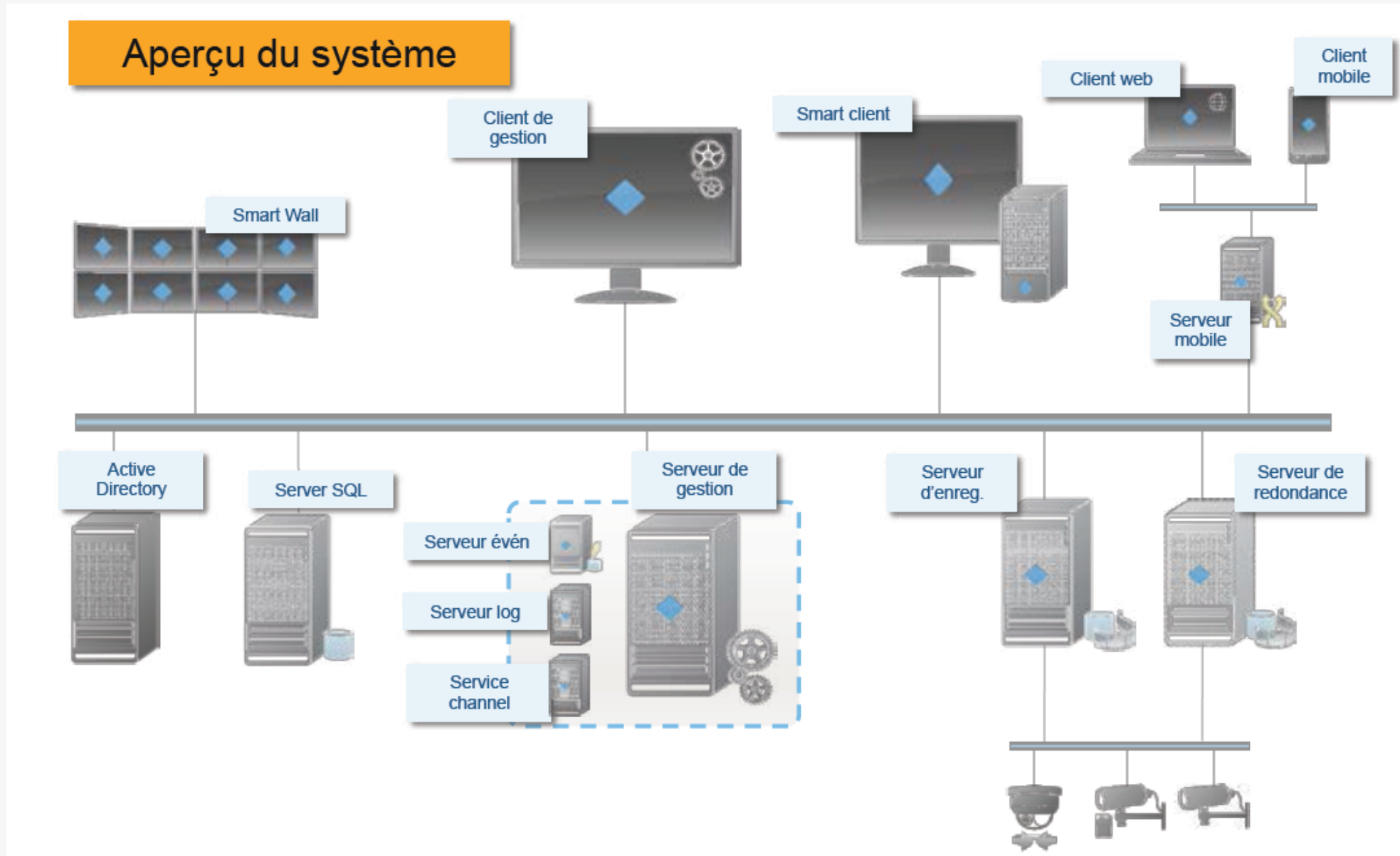⇨ GB/jour x Nbre of days of recording x Nbre de caméra = Besoin de stockage en GB (/ 1024 pour TB)

Standard Architecture
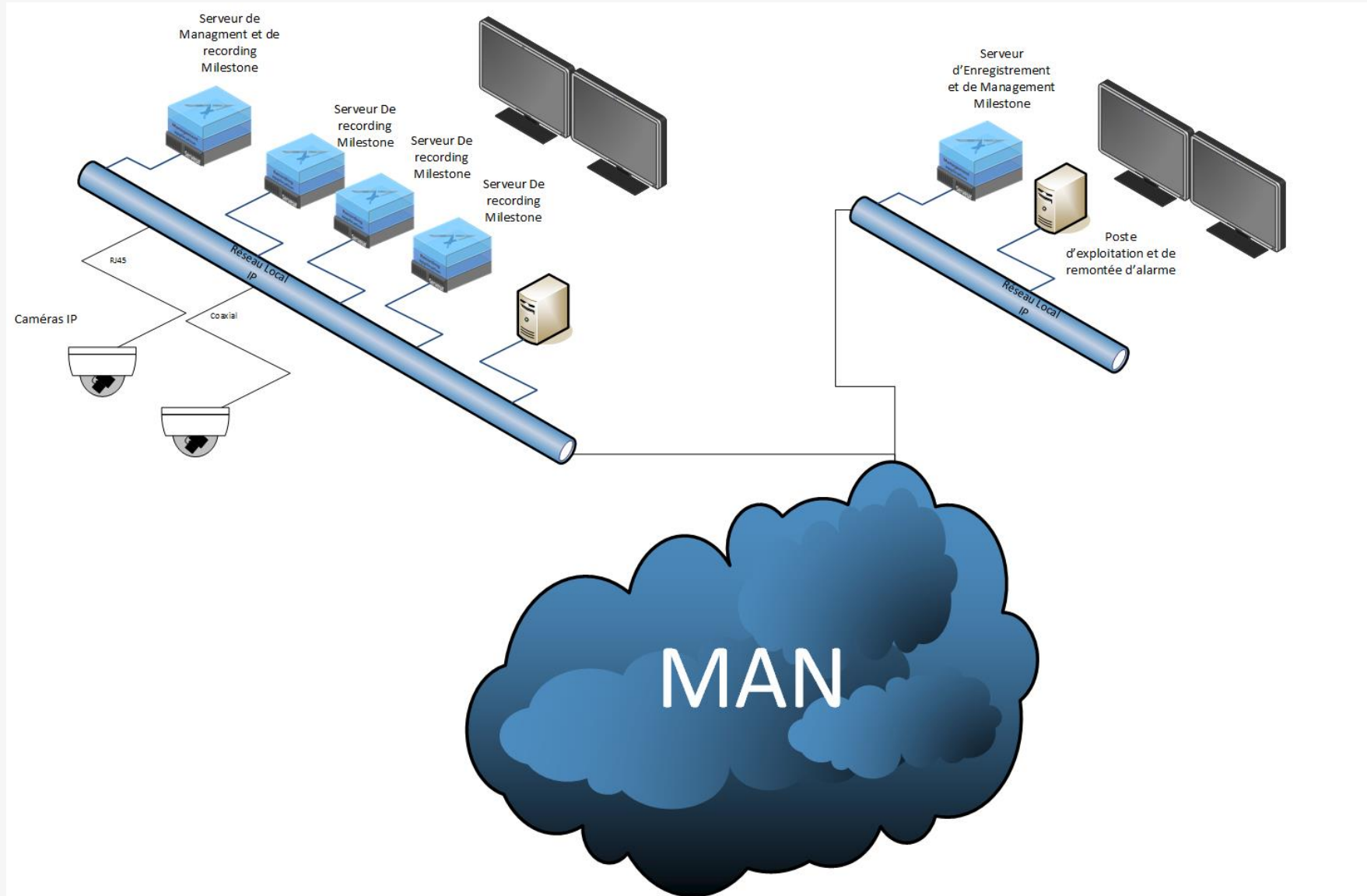
Xprotect Solution Overview

STORAGE

Our approach to the Storage Market

Solution provider rather than Hardware Vendor which is why we have an all-inclusive approach in terms of Software Licences and associated services.

aData Tribe offers two options for on-prem storage
- Proprietary storage (Assembled in Ireland)
- All Flash array from industry leading vendors

aData Tribe only works with leaders in Gartner Magic Quadrant for Primary Storage

Where Public Cloud is the preferred option aData Tribe can manage your entire AWS, Azure or Google Cloud tenancy.

ADT 2K, 3K, 5K

- A Data Tribe Proprietary Storage offering
- Fully end-to-end NVMe
- Data-In-Place migration capable, both in family as well as upgrade to next family
- 2U Rack space
- Entry-level array with full suite of Enterprise features
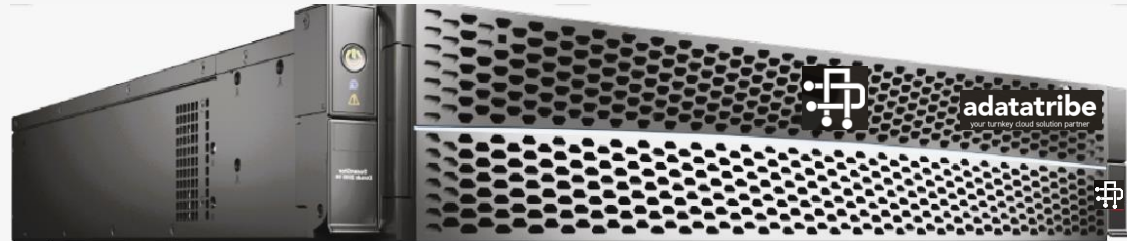
ADT 3000 All-Flash Storage Highlights

Ever Fast

Industry-leading performance and latency

30% higher NAS performance than industry benchmark

Ever Solid

SmartMatrix fully interconnected architecture for always-on applications

Provides active-active solution for SAN and NAS

Intelligent

Intelligent full-lifecycle management

Intelligent O&M Edge-cloud collaboration

DeviceManager: Easy-to-Use, Intelligent Device Management

Integrated GUI

- Block
- File Name
- Object*
- HDFS*

⟫
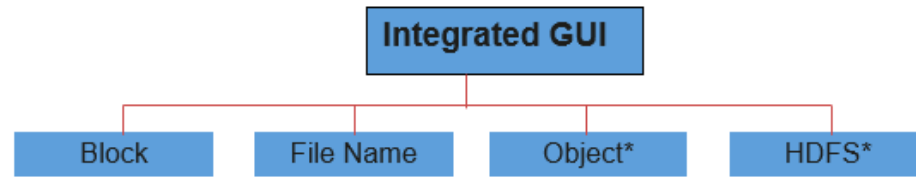
Simplified GUI
Unified portal for multiple services:
>50% higher management efficiency

Step 1 — Create LUNs
Step 2 — Create hosts
Step 3 — Create mapping views

4 clicks → 1 click   6 clicks → 2 clicks   1 click

⟫
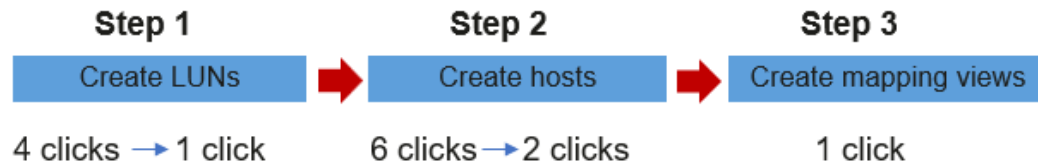
Simplified deployment
I/Os provisioning in three steps:
64% faster deployment

Create protection groups

- Snapshot consistency group
- Clone consistency group
- Replication consistency group
- Active-active consistency group

⟫
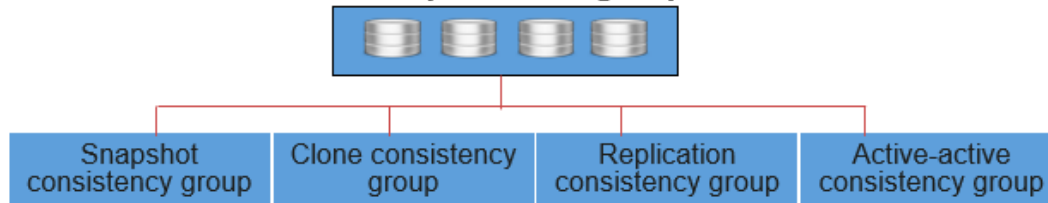
Simplified protection
Protection group management from the app perspective:
75% fewer operations

Converged SAN and NAS: One System for Multiple Workloads

Parallel SAN and NAS

iSCSI/FC	NFS/CIFS

Block service | **File service**

RAID 2.0+

Storage pool
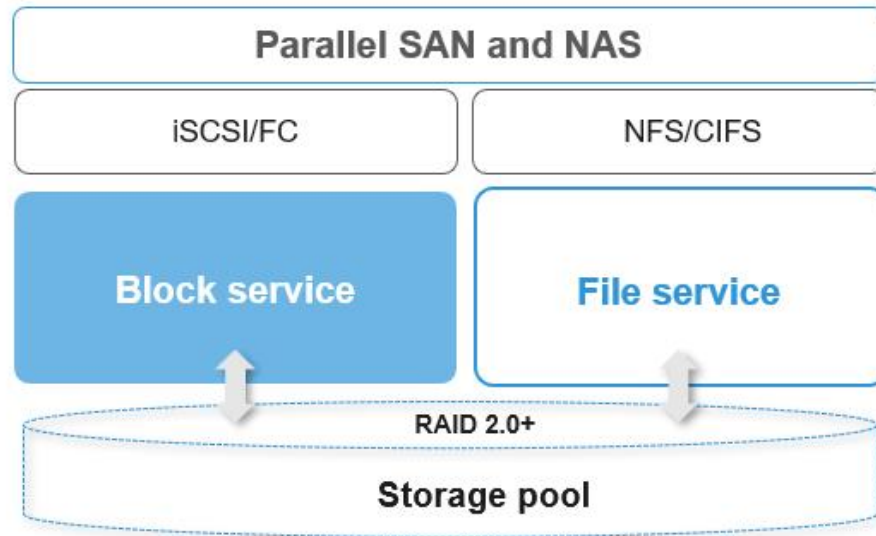
Gateway-free

All-in-one block and file storage and NAS gateway-free design **20%** lower procurement costs.

Parallel architecture

Parallel SAN and NAS provide different workloads with optimal access paths for the highest access performance.

Healthcare
HIS/PACS

Finance
Cheque imaging

Government
E-Gov./OA systems

Solution Reliability

— FlashEver Ensures Zero Data Migration for Always-On Services

New upgrade model

Individual replacement of controllers or drive enclosures **instead of** replacing the entire system
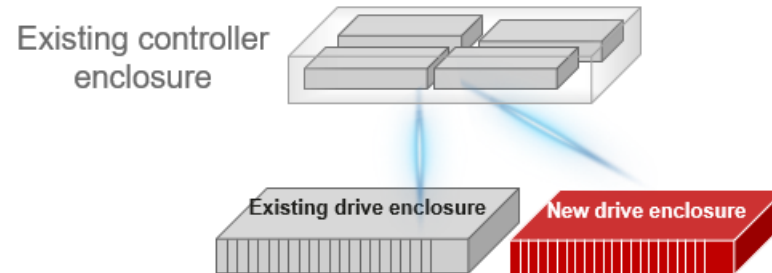
Zero data migration and **zero** service disruption

Free access to next-gen hardware for a **20%** performance increase

Upgrade the storage controller to the next gen

Existing controller enclosure

New controller

I/O   I/O

Automatic service switchover

Existing controller enclosure

New controller

Upgrade the drive enclosure to the next gen

Existing controller enclosure

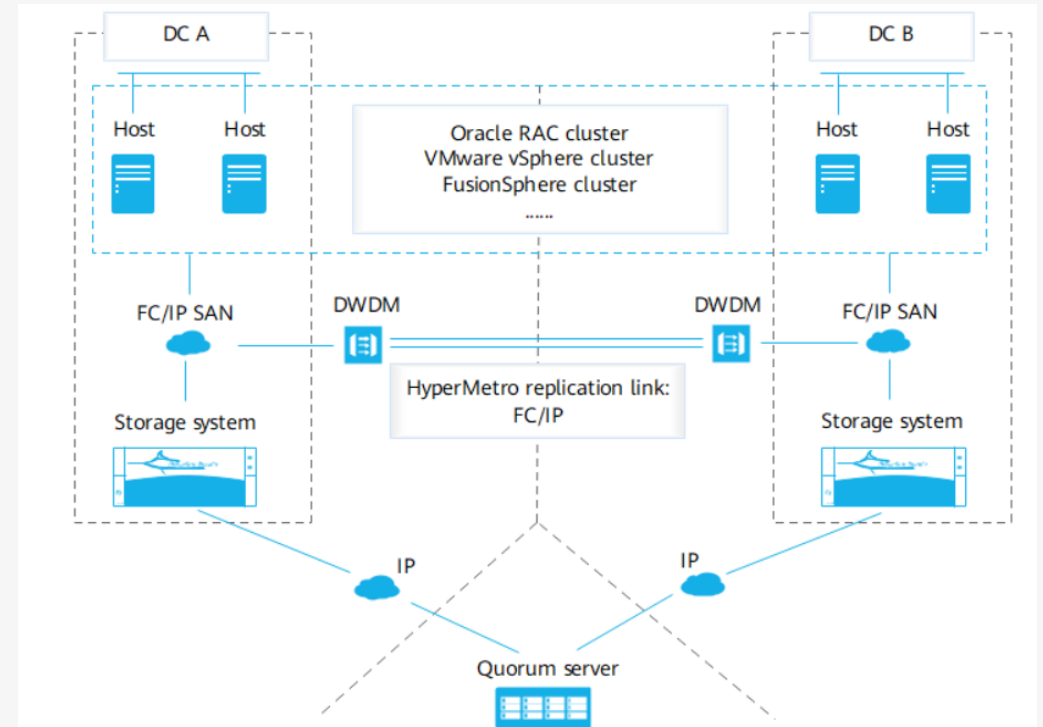Existing drive enclosure   New drive enclosure

ADT 2K, 3K, 5K Solution Highlights

- Ultra-high I/O Performance enabled by end-to-end NVMe architecture

- Ultra-low latency making it suitable for enterprise grade apps as well as use cases such as VDI

- 99.99999% uptime (7 nines) at solution level

- Active-Active clustering for both SAN and NAS workloads

- 3.3:1 data reduction for SAN workloads, 2:1 for NAS

- Intelligent algorithm reducing power consumption

HyperMetro

- In the event of a storage system or DC failure, services are switched over to the other DC at zero RTO and RPO, ensuring service continuity without any data loss.
- Both DCs provide services simultaneously, fully utilizing DR resources.
- The active-active solution ensures 24/7 service continuity. The gateway-free design reduces potential fault points, further enhancing system reliability.
- HyperMetro can work with HyperReplication to form a geo-redundant layout comprising three DCs.

EVERGREEN BUSINESS MODEL

- DELIVERS A SUBSCRIPTION TO INNOVATION

ACQUIRE ➤ RUN ➤ UPGRADE

ACQUIRE	RUN	UPGRADE
All-Software Included	Flat & Fair	Free Every Three
Right-Size Guarantee	Evergreen Maintenance	Upgrade Flex
		Capacity Consolidation

LIFECYCLE INVESTMENT PROTECTION
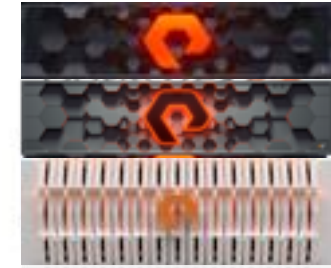
UNMATCHED
SIMPLICITY

ONE BOX

30-MINUTE INSTALL

STANDARD CABLES

NO MANUAL REQUIRED

ALL ARRAY SOFTWARE INCLUDED

EVERYTHING ENCRYPTED

NO TIERING OR PERFORMANCE TUNING
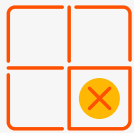
>_REST
API-BASED EVERYTHING FOR AUTOMATION

Pure1
AI-DRIVEN CLOUD SUPPORT, MANAGEMENT & ANALYTICS

Enterprise Data Services Included with FlashArray

Store, protect, access, and manage your data efficiently and securely

Purity FA

- Data Reduction
- Always-on Encryption
- High Availability
- ActiveCluster Replication
- Async Replication
- File Services
- Ransomware Remediation
- Quality of Service
- Non-Disruptive Upgrade

Efficient, Highly Available Data Storage

Be confident that *all* your enterprise data is stored using the least possible capacity

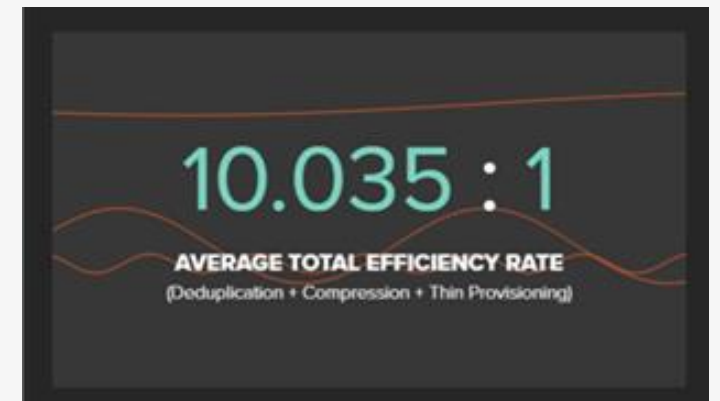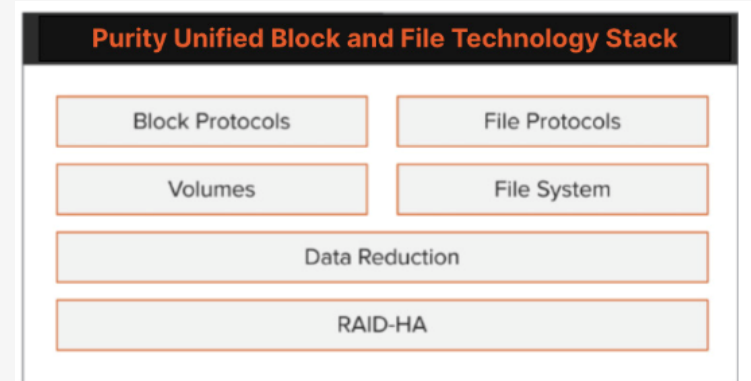**Unified block and file data services**

- Eliminate storage silos by data type for efficiency and flexibility
- Built directly on Pure's core data reduction and availability tech

Data reduction for maximum storage efficiency

- Spend less money with more efficient storage.
- Pure averages an industry-leading 5:1 data reduction with a total efficiency of 10:1 when thin provisioning is included.

High availability for always-on operations

- Pure protects against concurrent dual-drive failures and initiates re-builds automatically within minutes
- Performance variability is treated as a failure and uses parity to work around bottlenecks to deliver consistent latency.

Purity Unified Block and File Technology Stack

Block Protocols	File Protocols
Volumes	File System
Data Reduction	
RAID-HA	

10.035 : 1
AVERAGE TOTAL EFFICIENCY RATE
(Deduplication + Compression + Thin Provisioning)

What do you get with a Data Tribe Storage Solutions?

- Data in place migration capability covering 3 generations – up to 10 years

- Active-Active for SAN/NAS

- Synchronous Replication for SAN/NAS

- Sub millisecond latency

- Metro Cluster

- Very Competitive Pricing

Thank You

adatatribe
your turnkey cloud solution partner