



Rendering all other Cloud providers obsolete!  
What Cloud is meant to be, Period!

Cloud 101 - High Level Overview



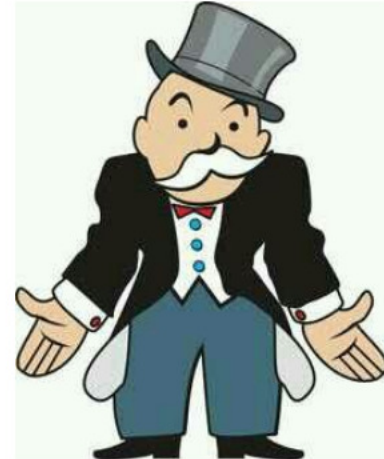


# Why Cloud Authority?

AI & Data Cloud is the next Gold Rush. Choosing the right Cloud is crucial. Cloud Authority is the only provider running a patented HCI AI / Cloud Engine.

CHOOSE WISELY  
Not all Clouds  
are created equally!



BASIC QUESTIONS	Cloud Authority	AWS / AZURE / ORACLE / GOOGLE
		
FULL SERVICE CLOUD PROVIDER	✓	✓
DYNAMIC SCALABLE ARCHITECTURE - FEA™	✓	✗
PATENTED HCI CLOUD INFRASTRUCTURE	✓	✗
10:1 DATA CENTER REDUCTION (SAVING ACREAGE)	✓	✗
USES NO WATER - SELF COOLING ARCHITECTURE	✓	✗
SAVE ENERGY & OFF GRID CAPABLE ***	✓	✗
HCI AI & HCI CLOUD ENGINE BASED SOLUTIONS	✓	✗



# STOP!!!!!!

**Ask yourself this question before proceeding**

*Are you ready to invest your companies time, energy and resources into a world changing CLOUD and save money?*

- If Yes, proceed forward and take your time reading through this high level presentation.
- If No, wishing to run on the ho-hum clouds of yesteryear kindly delete this entire presentation and thank you for your time.

What can a Supercharged  
IQ of 159+ Accomplish?

Turn the page and lets  
find out together!





# Welcome to Cloud Authority

Thank you for choosing to proceed forward!

This deck will take you approximately 1 to 1.5 hours to earnestly go through it.

It is CLOUD after all, extremely complex and far from simple.

Feel free to write down and ask as many questions as you wish or ask for additional materials. Cheers - John Robert



# Disruptive Technology

We are part of an Advanced Stealth Technology Company TNG Sovereign Group comprised of proven Engineering, Architecture, ODM (Original Design Manufacturing) building truly Disruptive technologies. We have created disruptive technologies that will revolutionize the World. [www.tngsg.com](http://www.tngsg.com)

Elegant Software Solutions enabled by Patented Disruptive Hardware Technology: The goal of every CxO / organization is being able to purchase compute power / storage as a utility in the same way they purchase electricity, gas, or water services.

Our unique Utility model provides true Composable Cloud Architecture (CCA); Cloud Authority's unique automated and patented Composable Cloud software and its disruptive hardware technology enables our clients to quickly develop and deploy next generation solutions quickly cleanly with minimum effort.

Software:

- True Utility Model, Flat fee that includes CPU, Storage, Networking, Cybersecurity, XaaS, SaaS, i.e.
- True Composable Cloud Architecture CCA™
- Reducing Opex and Risk via Automation and Virtualization of the entire solution stack
- Highly scalable and resilient Cloud on N+N Non-stop Patented Cloud Engines
- Easy to use interfaces, i.e. iCanvas Cloud Orchestration tool
- Advanced interconnects, compute and storage in a CCA Ecosystem, drive extreme performance
- Multi-layer firewall, cybersecurity, sensors and security roles throughout the solution
- Advanced Cloud feature set that covers 37 key elements in our Cloud





# Hard work leads to Innovation!

Cloud Authority development was the result of a Department of Defense project requiring ultra dense compute with low latency. Our founder, John Jensen, worked on this requirement and ran into a density vs heat issue and started work on the HCI patent that exists today.

<https://patents.google.com/patent/US20170135249A1/en>

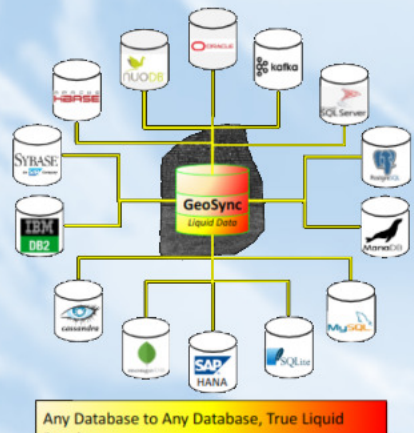
## Timeline / History:

- 2000 - 2012 working with advanced software and technologies in Department of Defense and Wall Street
- 2012 - Started work on Hyperconverged Infrastructure “HCI” ecosystem design, hardware and software.
- 2012 - 2016 worked on the HCI Ecosystem Patent
- 2016 - Patent submitted
- 2015 - Present - Software:
  - Developed FEA (Fluid Enterprise Architecture)
  - Developed CCA (Composable Cloud Architecture)
  - Developed Geosync - Replication / Migration / Transformation
  - Developed WAN Caching / WAN Replication
  - Developed Geosensing security solutions and firewall technology
  - Developed VDI “Virtual Desktop Infrastructure” GDPR compliant.
  - Developed DaaS “Directory as a Service” to integrate with and replace Active Directory and LDAP
  - Developed iCANVAS a Cloud Composable Orchestration Engine
- 2020 - Completed build of the worlds first working HCI AI / Cloud Engine “Hardware and Software”
- 2020 - Patent Granted US20170135249A1 - (First and only HCI Ecosystem Patent in existence)
- 2026 - MARKET LAUNCH OF CLOUD AUTHORITY CLOUD OFFERING
- ONGOING:
  - Development of additional patents for Olympus CCA & Quantum
  - Development of Quantum Integration into CCA
  - Launch of iQuantum Cloud offerings in 2027





E-4500 Cloud in Box can eliminate 99% of these problems



# World Problem

Data centers are consuming more power and natural resources with no end in sight!

Data Center & Cloud (**AWS, Google, Azure, etc.**) facilities are too big; consuming land, water, and power; 31% failure rate 2025; worst polluters on the planet and are not environmentally responsible!



Time to wake up world, as these numbers are only going to get much worse by a factor of 10x in the next 5 years



# Solution!

With our patented HCI ecosystem we enable clients to do more with less and solve the global problem!

LET'S TURN BACK EARTH'S CLOCK!  
ELIMINATE THE WORLD'S  
LEGACY CLOUDS AND  
DATA CENTERS WITH  
CLOUD AUTHORITY!



## 80% REDUCTION IN POWER CONSUMPTION

- \$25,999,999,973 saved
- 95,999,999,996 KWatts save
- **Future Cloud self powered!**
- **Off GRID Capable**



## 90% REDUCTION IN DATA CENTER WHITE SPACE

- \$844,760,000,000 saved
- 653,958,360 sqft saved



## 100% ELIMINATION OF WATER CONSUMPTION

- \$351,288,000,000 saved
- 516,600,000,000 Gallons saved



## 99.9% REDUCTION IN CARBON EMISSIONS

- \$5,550,000,000 saved
- 111,000,000 metric tons saved

US water consumption by the Trio below (*14.5 Billion Gallons on water consumed*). This does not include lakes and river system impact. *It's time to stop the madness!!!*

- Google 2023: Consumed 5.6 billion gallons of water, with **5.2 billion gallons** (93%) used for its data centers, representing a 20% increase from the previous year.
- Microsoft 2023: Disclosed a 34% spike in global water consumption from 2021 to 2022, amounting to nearly **1.7 billion gallons** (or more than 2,500 Olympic-sized swimming pools).
- Projections show that AWS, AZURE, Google, Meta, Oracle and others will consume **700,000,000,000 Gallons** in 2028 due to AI.





# Value Proposition

## How do we bring value to your business?

1. We eliminate up to 80% of your electric cost in your data center
2. Immediate cost reduction, on average 40% less than AWS
3. We simplify, virtualize and automate 98% of your IT environment
4. We collapse 60 - 80% of your Data Center footprint
5. We significantly reduce Risk and Compliance issues
6. We reduce OPEX by 80%
7. We reduce license cost by 75% or greater
8. We reduce Merger and Acquisition complexity by 98%
9. We reduce overall Cloud and IT complexity by 80%
10. We reduce Desktop OPEX and CAPEX by 70%
11. We turn your data liquid making migrations painless
  - Any Database to Any Database



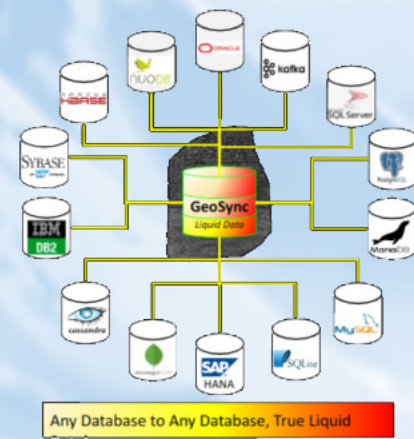


Ask AWS, AZURE, GOOGLE or ORACLE where their Cloud Engine is?

We dare you!

They have none, nothing even close!

Cloud Authority has the only patent on HCI and the only TRUE AI / CLOUD ENGINES, Period!



# Our Cloud / AI Solutions

iStormCloud - CloudVault



**Our Cloud Services**

- Advanced AI - Photonics Based Hardware / Software
- Advanced Cybersecurity Software
- CloudVault - Core Cloud Multi-Tenant, Multi-Cloud Software
- Advanced Secure VDI Software and Hardware
- GeoSync Nonstop MultiMaster Replication - 100% uptime
- Pay by the SIP Billing - super simple
- Internal Cloud Speeds up to 16.1 Terabytes per second

E4500 - AI / Cloud Engine



**HCI AI / Cloud Engine available to clients on their site of choice**

- The E4500 sits on client site and replaces servers, routers, other IT burden.
- The E4500 can cut overall annual IT Spend by 50-90% annually
- E4500 shrinks client on-site data centers (20-50 racks = 1 - E4500)
- All software and other features in CloudVault™ comes with our E4500
- Our competitors onsite cloud solution is not even close to matching the E4500
- E4500 helps meet or exceed data compliance requirements (DISA, HIPAA, HiTrust, SOC, PII, PCI and more)
- True Cloud in a Box

\*\*\* See our R2200, E7000 or X-VMS series of Cloud Engines for mobility and scale

AWS (Amazon), Azure (Microsoft), Google Cloud & Others

versus

CloudVault™ & E4500



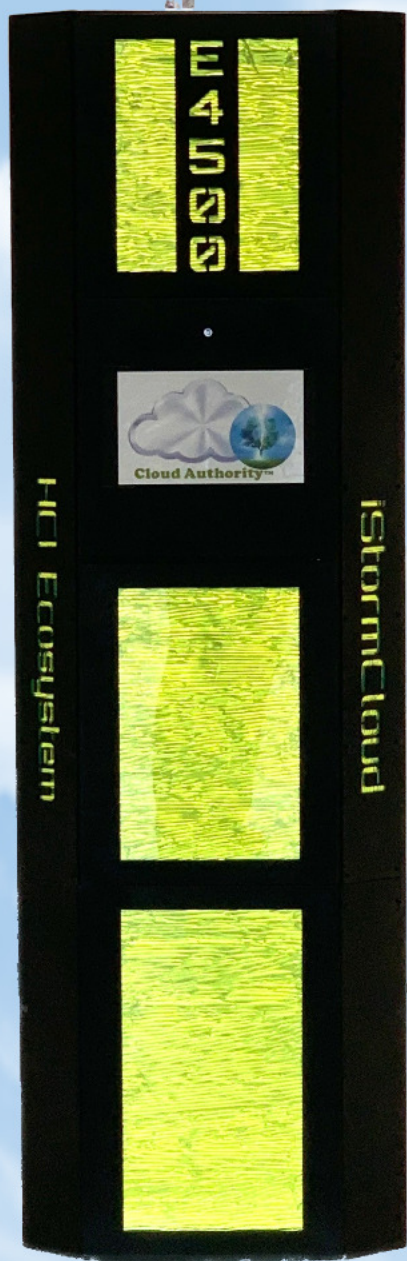
**YES - We are generations ahead of our competition!**



**Highly Confidential**



"Cloud in a Box"



# iStormCloud HCI Cloud Engine

The first true HCI AI / Cloud Engine! "Cloud in a Box"

**Power requirements: Max consumption 40K Watts**  
**Connections: 2 - NEMA L5-20 compliant 115 VAC receptacles**  
**4 - NEMA L6-30 compliant 200 VAC receptacles**  
**Dimensions: Width x Height x Depth 24" x 81.5" x 72"**  
**Weight: fully loaded: 4,972lbs**  
**Operating temperature: 10°C to 55°C**  
**Operating humidity: 8-80% (non-condensing)**  
**Non-operating temperature: -40°C to 65°C**  
**Non-operating humidity: 20%-95% (non-condensing)**

\*\*\* Ask for our E4500 Hardware and site guide for more information.

**E4500 Mark V**  
**Patented AI / Cloud Engine**  
 Intel Platinum Cores E6700/E6900P - 4816 to 6880 Cores  
 Intel Platinum Cores E6700/E6900E - 8064 to 11520 Cores  
 AmpereOne Performance ARM CORES 5376 to 8448 Cores  
 RAM DDR5 RDIMM 112TB to 176TB  
 Near iFLASH 20M-IOPS Storage 10PB to 15.8PB  
 iFLASH 40M-IOPS Storage 17.6PB to 27.5PB  
 Network Fabric 800GBps to 1.6PBps N+N  
 AI - 900,000 to 1,800,000 AI CORES / 214PBps Fabric Bandwidth / 44GB SRAM / Memory Bandwidth 21PBps

**Intelligent multi-VAC PDU**  
 N+N Platinum level Power supplies - NEMA Compliant

**Quantum 800GBps Switch - XDR**  
 72 - 800GB Ports running on a 57.6TBps backbone

**iFLASH NVME-OF**  
 17.6PB to 15.8PB of extreme performance over 800GBps XDR

**EMI/EMP Shielding**  
 TNG exclusive armor skin with native EMI/EMP shielding

**Advanced Compute and AI Core**  
 4500 to 1.8M compute / AI cores in a single 3 tile footprint

**Advanced Near Line iFlash**  
 advanced Ransomware protection ( 10 to 15.8PB)  
 Nearline storage

**Hardened Admin Switch**  
 admin fabric to all internal modules within the frame

**Military Grade Admin Console**  
 running FIPS Compliant Linux OS in locked in a control vault

**External Display**  
 Syslog and alert display

**iStorm Cooling System**  
 creates positive pressure on frontside systems

**Lifetime - High Speed Filters**  
 active carbon filters





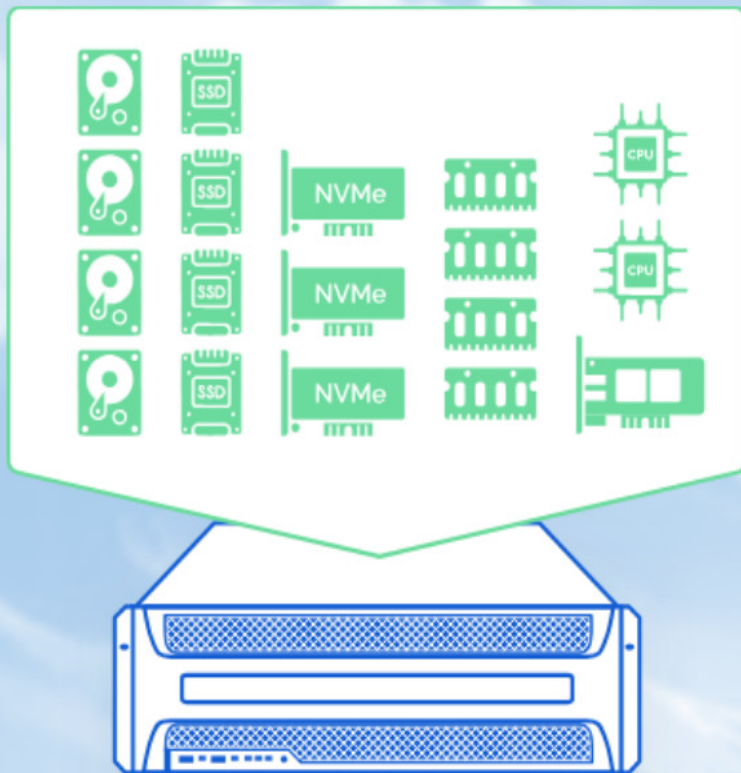
# Our HCI Density Advantage

Through innovation and genius, Cloud Authority solved the data center cooling code enabling Cloud Authority to:

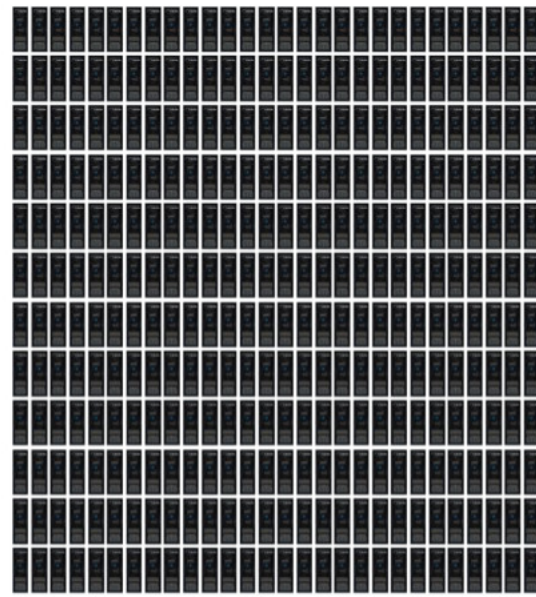
- Create iStormCloud, a Green Cloud-Engine the most dense | scalable HCI software defined AI & Cloud solution on planet earth
- Run the world's most advanced Compute & AI Processors
- Run the world's most powerful fluid Cloud Software
- Reduce OPEX by 90% and software licensing costs by 4X or greater
- Reduce power consumption up to 80% or greater

*\*\*\*Example below reflects a 2019 case study at Alight, ChiCloud Authorityo Ill.*

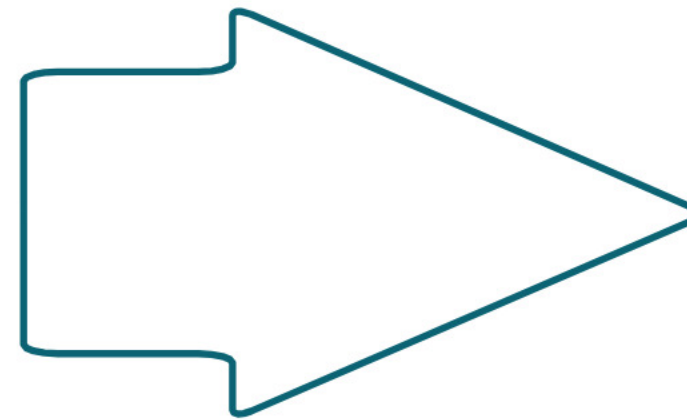
HCI Defined



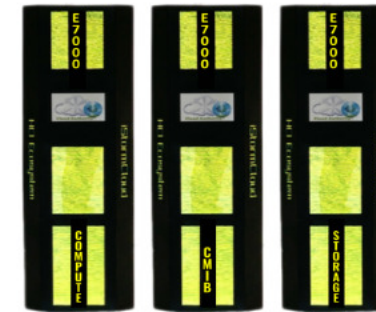
**REPLACE Dell VXBLOCK**



**REDUCE 15,000 Sqft...**



**WITH AN E7000:**



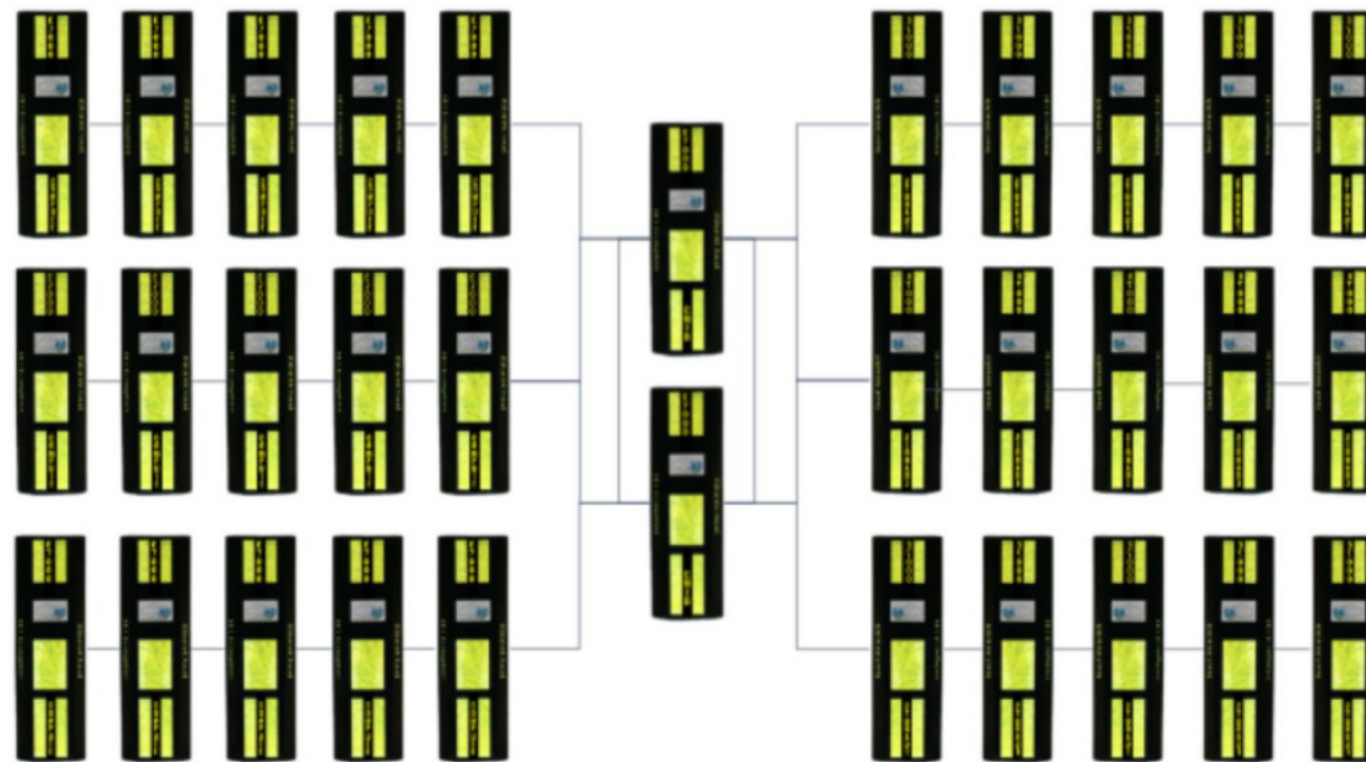
**TO LESS THAN 100 Sq Ft**



# E7000 - Our Primary AI / Cloud Engine

Our Primary Cloud Engine with 6,144 - 392,160 Platinum cores in a V1 (Vault) configuration or 437,760 AmpereOne cores, 1140 Petabytes to 1.2 Exabytes of iFlash NVME-OF Storage. Scaling to a V7 Vault with over 2.74 million Intel Platinum or 3 Million AmpereOne cores and 8.4 Exabytes of iFlash NVME-OF Storage. Using our Athena AI Engines you can scale from 1.8 million AI cores to over 54 million cores in the AI - V1 Vault.

**Not a single Cloud provider has such density or scale!**



**V1 Vault - 1200sqft - True Enterprise Scale**



# E4500 Athena - Hyper-converged AI

Our Primary HCI - AI Engine with unmatched density capable of running the world's most complex problems in the blink of an eye. Capable of running large language models of 24 trillion parameters, orders of magnitude faster than the competition. How fast? Our partner ran a AI V1 Vault using Meta's 70 billion parameter Llama 2 large language model with a result **30 times faster than Meta's AI training cluster. 1 day versus 30 days! Yes, it's that fast!**

Athena - AI



## Athena AI Specifications:

<i>AI Cores</i>	1,800,000
<i>SRAM in GB</i>	88
<i>Memory Bandwidth in Petabytes</i>	21
<i>Fabric Bandwidth in Petabytes</i>	214
<i>Enterprise Scale - Zettaflops</i>	.25
<i>Peak AI Performance - Petaflops</i>	125

**AI V1 Vault - 1200sqft - 54,000,000 AI CORES**





# X-MVS (Xtreme - Mobile Vault Solution)

Our mobile AI / Cloud Vault is designed to run on any level surface within this planet or outside this atmosphere. Utilizing the same HCI patent, we can scale this solution to match any Vault configuration from thousands of cores to millions of cores and exabytes of data storage. This X-MVS solution comes with addition containers designed to provide site power, offices and custom pods for expedition or rescue equipment and vehicles. Designed for military, FEMA and other agencies or clients requiring an instant operations base.

## X-MVS

The power and scale of the Cloud capable of running anywhere on Planet Earth!



### X-MVS Specifications

#### Compute AI / Cloud module:

- 58,368 performance cores
- 1.8 million AI cores
- 4.8 Petabytes of storage
- Scales to over 1 million cores

#### Power Generation Module:

- NEMA compliant
- Multi-equip Dual 220 kVA Diesel Generator
- Tier 4 Final Engine
- Single/Three-Phase
- Quiet Operation

#### HQ / Ops Center Module:

- Full VDI Solution set for 8 to 10 operators
- Includes all furniture
- HVAC

**X-MVS**

The power & scale of the Cloud in a hardened mobile armored box!

X-MVS System Config	Cores	RAM / SRAM GB	iFLASH NVME PB
E7000 Compute - AmpereOne	58,368.00	1216	109.2
E7000 Storage - Intel 6700	4,864.00	158	37.5
E7000 AI	1,800,000.00	44	2

**TNG**  
Sovereign Group

Other Modules available to order for complete FOB



# CloudVault

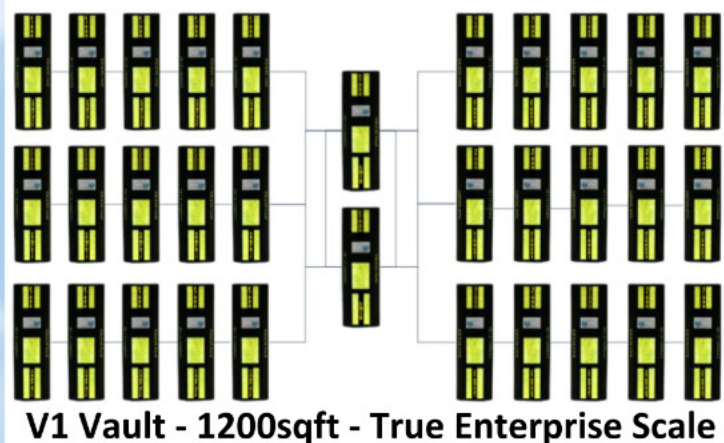
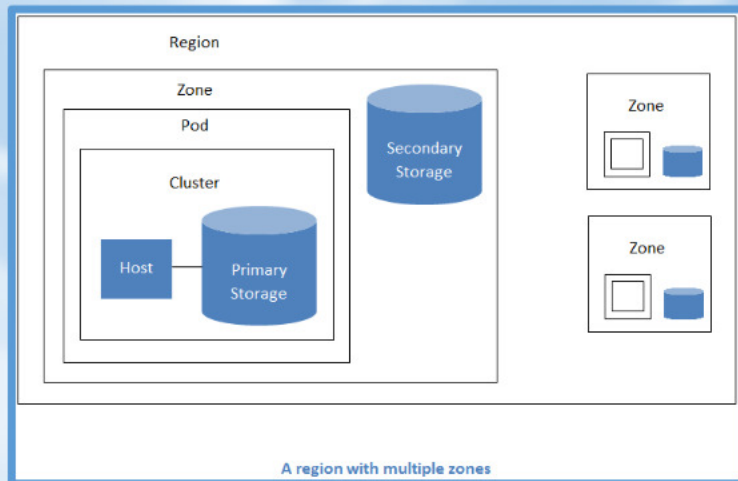
The core of our cloud is CloudVault, based on Openstack created in partnership with Canonical/Ubuntu. This powerful Cloud running on our patented Cloud Engines provides XAAS, SAAS, Containerization, etc. Your application can be provisioned in minutes running on the world's fastest and only Cloud Engine. OpenStack was launched in 2010 and its primary objective was to resemble the behavior of leading public clouds. This is why AWS, Azure, or Google Cloud workloads can be moved to OpenStack so easily. The platform, however, is fully open source, resulting in code transparency and no vendor lock-in. CloudVault is a Cloud Orchestration platform that pools computing resources to build public, private and hybrid Infrastructure as a Service (IaaS) clouds. CloudVault manages the network, storage, and compute nodes that make up a cloud infrastructure.

CloudVault has a hierarchical structure which enables it to scale and manage tens of thousands of physical servers, all from a single management interface. Under the hood, OpenStack wrapped in Cloud Authorities enhancements uses many other software components and open source projects, such as [KVM](#), [Ceph](#), and [OVN](#). All of that, wrapped with programmable APIs and end-to-end automation, delivers a cloud experience that lets users provision and manage cloud resources through a self-service portal. Today, CloudVault serves as a de facto standard for building clouds of any type. Native integration with [Kubernetes](#) and world's leading chip-sets, such as [NVIDIA GPUs](#), make it a perfect candidate for running both traditional and modern, cloud-native applications.



# CloudVault Availability Zones

- **Availability Zones**
  - An Availability Zone is the largest organizational unit within a CloudVault deployment. Typically a data center (DC) implementation will contain one or more Zones. By structuring CloudVault into geographical Zones, virtual instances can be placed in specific locations in order to comply with an organization's data storage policies etc.
  - An Availability Zone consists of at least one Pod. Zones are visible to end users, who can then choose which Zone they wish to create their virtual instances in. Private Zones can be created which are then only available to members of a particular domain and its associated sub-domains.
- **Cloud Engine / Frames**
  - Our Cloud Engine/ Frame is an HCI ecosystem containing all compute, storage, network and Hypervisors. Each Frame has a dedicated Primary Storage devices which is where the virtual machine instances are hosted. With multiple Hosts within a Frame, High Availability and Load Balancing are standard features of a CloudVault deployment.
- **Pods**
  - Typically a Pod sits on one or more Frames or in our Vault (V1 - V7) which can scale up to exabytes of storage and hundreds of thousands or millions of CORES.

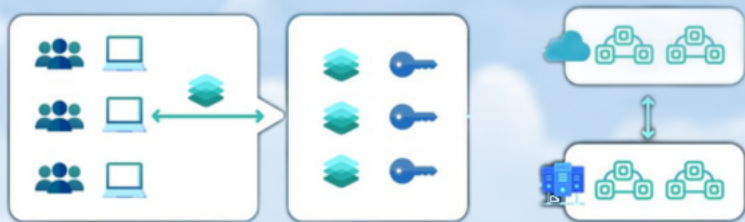




# EC2 Containers, Dockers & Kubernetes

CaaS is developed as a plug-in to CloudVault. It gives users the ability to create container clusters within an existing multi-tenant environment provided within CloudVault. The user experience is seamless: users can now manage container clusters and deploy and manage cloud native applications all in the same user-interface that they use to manage their existing compute, network and storage. For service providers running dedicated or bespoke UI's, a number of simple API calls have been added to the CloudVault API to allow simple integration.

In a similar fashion to Amazon's [EC2 Container Service](#) and [Google Container Engine](#), users within CloudVault simply pay for the resources that they consume to underpin their container clusters. This gives the advantage of requiring no changes to business or commercial models by the service provider. CloudVault Container as a Service uses iCanvas a JuJu operator framework to design, create and deploy your applications at scale.



## CloudVault Container as a Service (CaaS) – Advantages

- Configured in minutes. We offer enterprise grade container services deployed instantly via iCanvas
- Fully multi-tenant, multi-cloud
- Utilize your existing CloudVault User Interface for containers and VM's together
- No changes to product catalogue or billing processes required
- Users can deploy cloud native applications into clusters of containers
- Advanced cluster management tools
- Online and interactive end-user documentation and tutorials

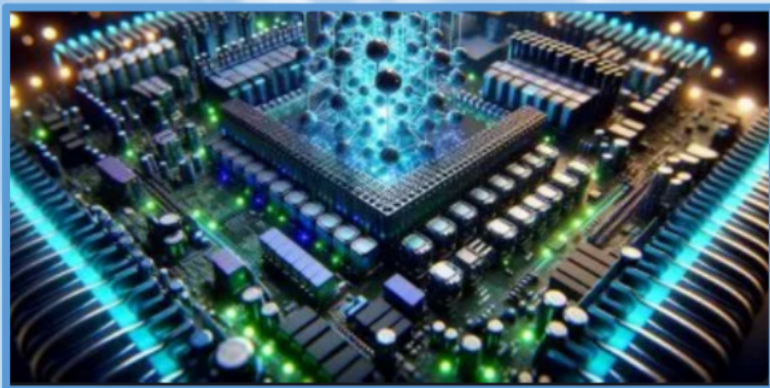
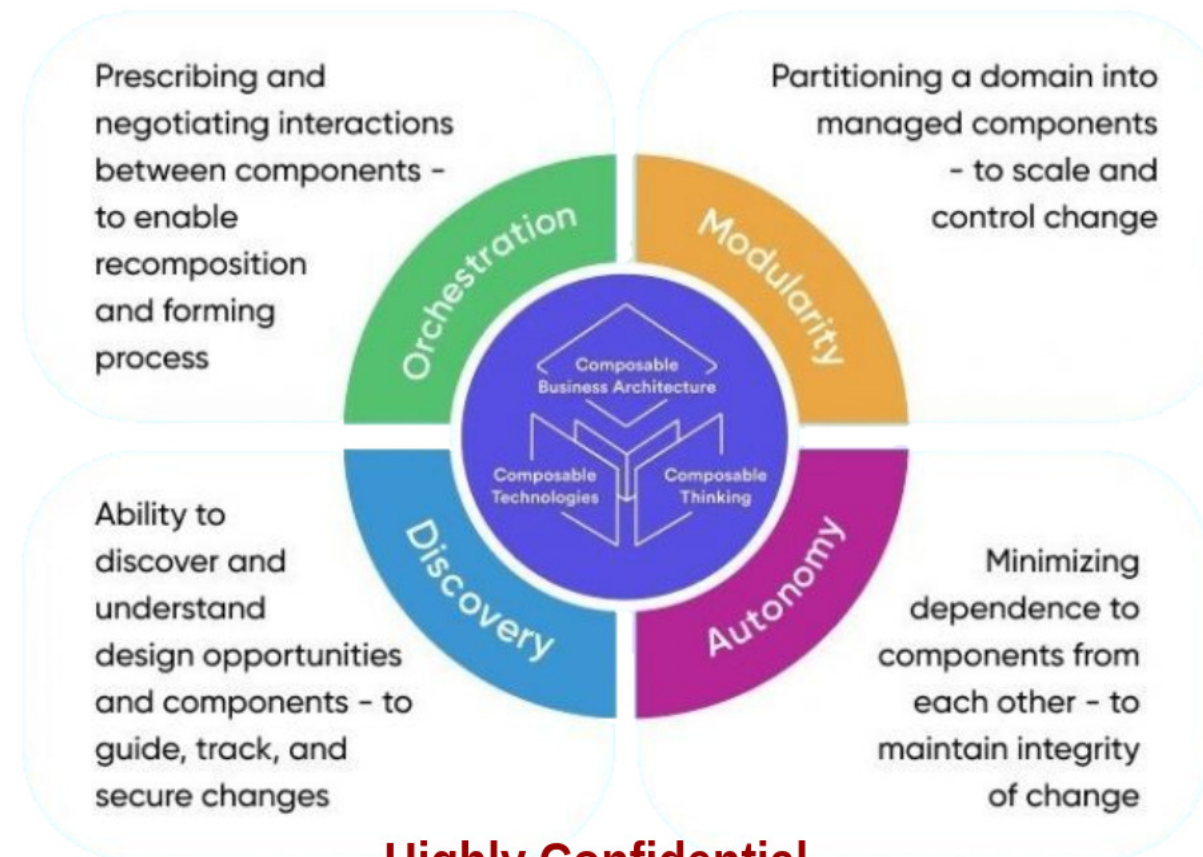


# CCA™ - Composable Cloud Architecture

Born out of FEA, Fluid Enterprise Architecture CCA or Composable Cloud Architecture is a dynamic ecosystem comprised of our unique hardware, operating systems, software, cloud software and security software all controlled via an integrated orchestration tool called iCANVAS. This enables a developer and solutions architect to create an entire application suite and provision its infrastructure along with firewall rules, security sensors, application code, etc in minutes within the CCA Ecosystem.

This solution enables application teams to quickly and easily deploy POV, DEV, QA, UAT PROD and BCP environments in minutes not days, weeks or months. In addition our Cloud ensures you meet or exceed compliance via the many security and audit tools native to our Cloud. You can even benchmark your applications with our end to end transactional tools and find the performance issues before go live.

## The core design principles of Composability





# Composable Cloud Architecture - iCANVAS

iCANVAS gives you control over a vast HCI “Hyper Converged Infrastructure” Ecosystem of advanced compute, storage and networks interconnected from 800GBps to 16.1TBps. The military grade components, from the admin console to the internals, communicate at speeds 20X our competition. This unique solution is a combination of advanced software, hardware and networks to give you optimal performance no matter the workload. From heavy OLTP to advanced AI and GPU, iStormCloud has you covered.

iCANVAS gives you the power to deploy large Kubernetes Clusters or Docker Storm. You can deploy traditional applications with web, app and database to large applications with multi zone web front ends with firewall gateways to app layer and then database layers to large data lakes. There is nothing you cannot do today or tomorrow with iStormCloud. In 2027, we will roll out Olympus Class Cloud Engines with powerful Quantum Coprocessors to accomplish anything imaginable.

We will open up new doors to data exploration with Quantum, running under iStormCloud’s CCA solutions. With over a 1000 cubits of Quantum power, combined with the ultimate Cloud Engine, there is nothing you cannot do.

iCANVAS

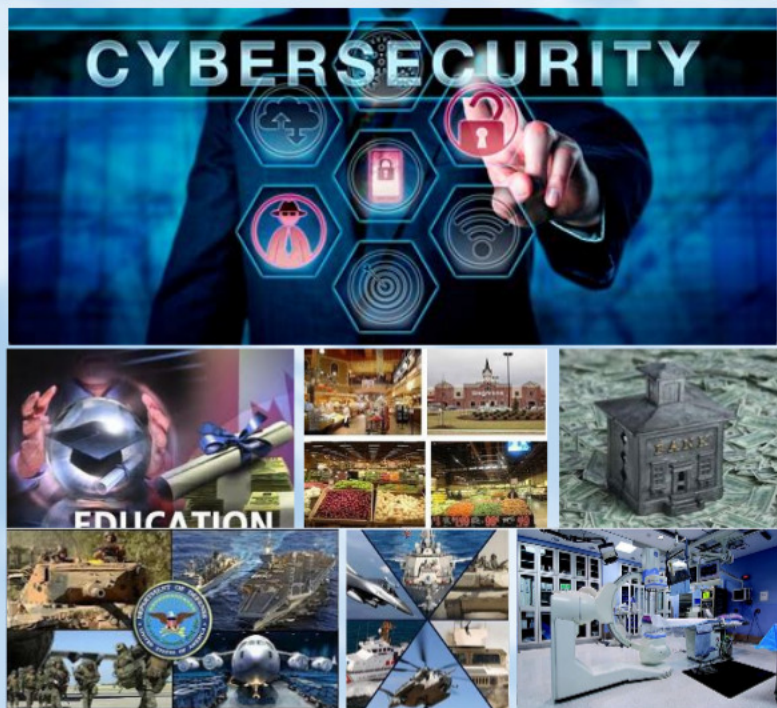




# Cybersecurity

Cloud Authority's entire solution was developed from a cybersecurity initiative. Everything Cloud Authority creates is layered in security solutions. Cloud Authority provides a complete security suite of solutions which effectively prevents breaches and safeguards against sophisticated threats with advanced AI. Our Zero Trust solution provides coverage across the full spectrum of devices, ownership models, network, apps and people. It continuously authenticates users and dynamically adopts security policies to deliver a Zero Touch experience that improves security with no user interruption. Our mobile solutions and VDI prevents, detects and remediates advanced malicious threats at the device and application levels. It combines the mobile endpoint management capabilities with advanced Cloud VDI™ AI-driven threat protection to get in front of malicious cyber attacks in a Zero Trust environment. From Edge to Cloud Core we protect you, our VDI solution eliminates threats and risks as we destroy each desktop image once a user logs out. **Any threat or virus is immediately destroyed.**

VDI also means your data stays in a secure within CloudVault. You maintain compliance and ensure your client's data is protected from all threats including Ransomware. We have intelligent Network sensors either a 1U hardware sensor, virtual, or cloud platform that quietly and unobtrusively observes network traffic. We interpret what the sensor sees and create compact, high-fidelity transaction logs, file content, and fully customized output, suitable for manual review on disk or in a more analyst-friendly tool like a security and information event management (SIEM) system. We have patent pending collector tools and other security tools used within our solution.





# Firewalls, Intrusion Prevention & VPN

## Virtual Firewall & Routers

- Stateful Packet Inspection (SPI)
- GeoIP blocking
- Anti-Spoofing
- Time based rules
- Connection limits
- Dynamic DNS
- Reverse proxy
- Captive portal guest network
- Supports IPv4 and IPv6
- NAT mapping (inbound/outbound)
- VLAN support (802.1q)
- Configurable static routing
- IPv6 network prefix translation
- IPv6 router advertisements
- Multiple IP addresses per interface
- DHCP server
- DNS forwarding
- Wake-on-LAN
- PPPoE Server

## Intrusion Prevention System

- Snort-based packet analyzer
- Layer 7 application detection
- Multiple rules sources and categories
- Emerging threats database
- IP blacklist database
- Pre-set rule profiles
- Per-interface configuration
- Suppressing false positive alerts
- Deep Packet Inspection (DPI)
- Optional open-source package for application blocking

## VPN

- IPsec and OpenVPN
- Site-to-site and remote access VPN support
- SSL encryption
- VPN client for multiple operating systems
- L2TP/IPsec for mobile devices
- Multi-WAN for failover
- IPv6 support
- Split tunneling
- Multiple tunnels
- VPN tunnel failover
- NAT support
- Automatic or custom routing
- Local user authentication or RADIUS/LDAP

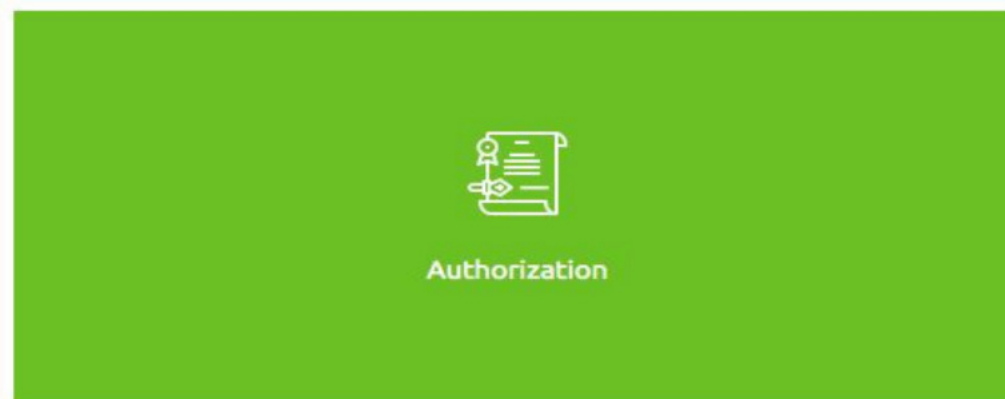
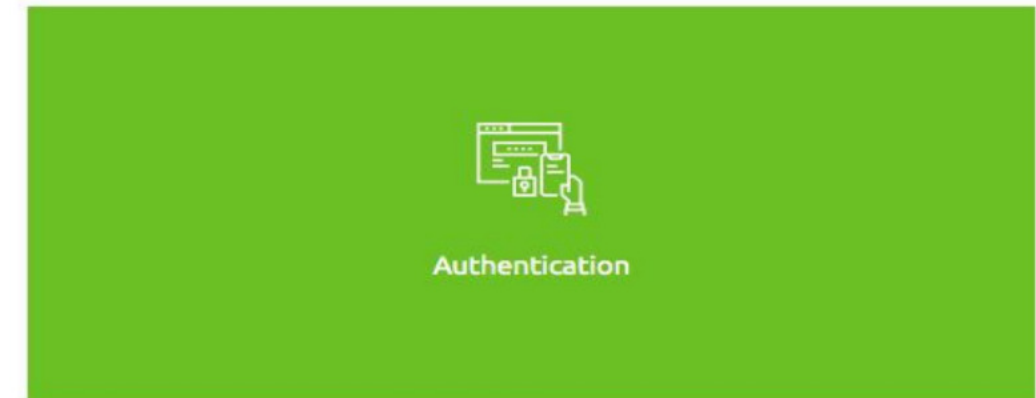




# Encryption, Authentication, Authorization

Industry-leading security with end-to-end TLS encryption, mutual authentication with X509 certificates, and role-based authorization over data structures and actions, making security a seamlessly integrated component of your IMDG Enterprise application.

- Streamlines the security of your sensitive and valuable data
- Seamlessly combines industry security standards and easy-to-use APIs
- Keeps your Cloud Authority IMDG application performing at top speed with the peace of mind associated with an open source security model
- Features best-in-class security features in the distributed caching market
- Offers a proven level of quality – trusted by the world’s leading financial institutions for mission-critical enterprise applications



**Security**

Protect your data with role-based access controls and encryption



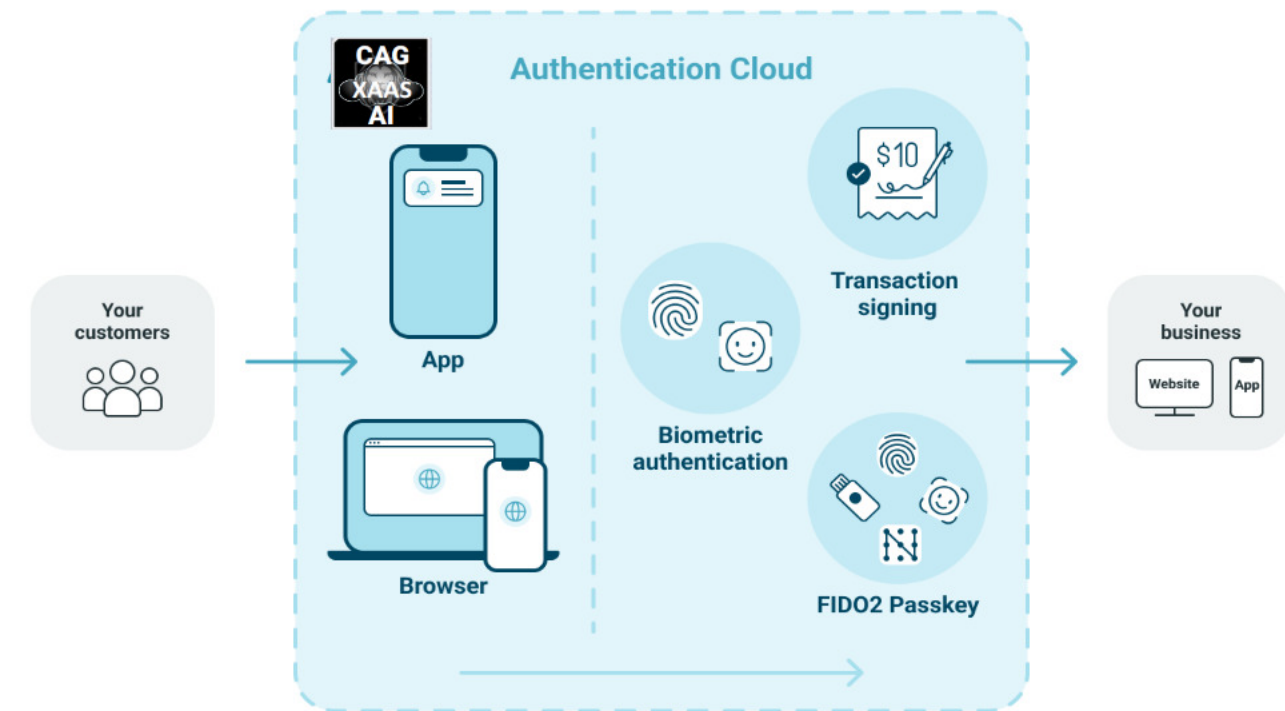
# Reliability & Authentication

## Enterprise Reliability

- Optional multi-node High Availability Clusters
- Multi-WAN load balancing
- Automatic connection failover
- Bandwidth throttling
- Traffic shaping wizard
- Reserve or restrict bandwidth based on traffic priority
- Fair sharing bandwidth
- User data transfer quotas

## User Authentication

- Local user and group database
- User and group-based privileges
- Optional automatic account expiration
- External RADIUS authentication
- Automatic lockout after repeated attempts





# vInsight, RiskIQ, Digital Risk Management

## In Partnership with RiskIQ for Cyber Threat Intelligence

vInsight Combines the details of your organization's entire network conversations with RiskIQ Cyber Threat Intelligence and Digital Risk Management Platform allowing you to pivot from the RiskIQ platform to the end-to-end details of each suspect conversation





# Deploy, Integrate & Analyze

## Deployment

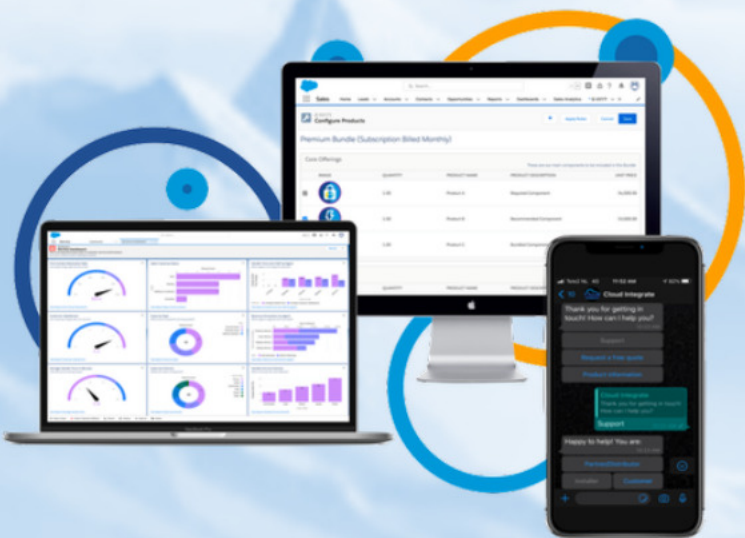
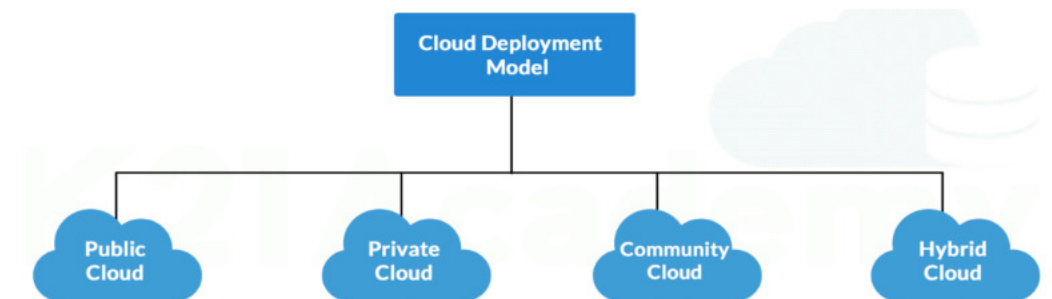
- Runs on commodity hardware on standard UNIX-style systems (including Linux, FreeBSD, and MacOS).
- Fully passive traffic analysis off a network tap or monitoring port.
- Standard libpcap interface for capturing packets.
- Real-time and offline analysis.
- Cluster-support for large-scale deployments.
- Unified management framework for operating both standalone and cluster setups.
- Open-source under a BSD license.

## Interfacing

- Default output to well-structured ASCII logs.
- Alternative back-ends for Elasticsearch and DataSeries.
  - Further database interfaces in preparation.
- Real-time integration of external input into analyses. Live database input in preparation.
- External C library for exchanging Zeek events with external programs.
  - Comes with Perl, Python, and Ruby bindings.
- Ability to trigger arbitrary external processes from within the scripting language.

## Analysis

- Comprehensive logging of activity for offline analysis and forensics.
- Port-independent analysis of application-layer protocols.
- Support for many application-layer protocols (including DNS, FTP, HTTP, IRC, SMTP, SSH, SSL).
- Analysis of file content exchanged over application-layer protocols, including MD5/SHA1 computation for fingerprinting.
- Comprehensive IPv6 support.
- Tunnel detection and analysis (including Ayiya, Teredo, GTPv1). Zeek decapsulates the tunnels and then proceeds to analyze their content as if no tunnel was in place.
- Extensive sanity checks during protocol analysis.
- Support for IDS-style pattern matching.





# Cloud VDI™ - Main Features

Cloud-VDI is a [Desktop Virtualization](#) platform, its main goal is to provide users with secured two-factor access to their desktops and applications. Cloud-VDI provides a secure, stable, performance enhanced infrastructure for both Apple, Windows and Linux desktops.

The M7 End Point device is a military grade secured, CAC enabled device to ensure your user desktop follows you no matter where you travel or use it. We provide two-factor authentication, in addition Cloud-VDI meets GDPR (General Data Protection Regulation) compliance. The device supports multiple screens(4), is completely secure, and your data remains safe within the Cloud-VDI solution, locked down like a Vault.

Cloud-VDI main features are:

- Flat monthly low pricing for VDI solutions including turnkey Cloud-VDI solutions.
- Supports virtualization of **Windows** from XP to Windows 11, Windows Server from 2016 to 2022, and all flavors of **GNU/Linux**. We can advise you on the best way to configure your custom templates so that your users get the most out of their desktop experience.
- Desktops are accessible from a **wide variety of clients**. We support Windows, Linux and Mac desktop clients, as well as mobile clients for iOS and Android devices. Finally, you can even access your desktop from anywhere using just a web browser with our HTML5 client.
- **Scalable, fault-tolerant** cluster architecture. New hosts can be added to the cluster as needed, as easily as configuring the network and registering the host with the platform. Its resources will be ready to use at once. In the same way, the platform will quickly recover from a host failure, using the rest of its resources to keep the service up and running. Growing from hundreds to thousands of desktops is easy with Cloud-VDI.
- **Template-based** desktops. Quick and easy to update when new versions of your software are available, highly available and secure, virus proof desktop instances.
- **LDAP or AD** based authentication/authorization. Use our DaaS Directory as a Service and eliminate legacy directories like LDAP and AD. Cloud-VDI integrates with your corporate directory seamlessly either direction you choose.
- Configurable **security capabilities**, to restrict access to the desktop resources from the client side: clipboard, printers, and usb devices
- Supports **shared storage** within Cloud-VDI Ecosystem and advanced replication and BCP.
- **Green Desktop solution**, providing low environmental impact technology.

Cloud VDI - VAAS





Secure GDPR compliant access to your world. Cloud Authority will save significant money via our VDI

Cost savings study. Some clients can save \$3.4 million in electric alone per a recent Hoovers study.



# Cloud VDI™ “Your entry point to Cloud”

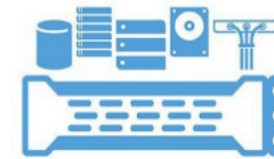
## VDI - Virtual Desktop Interface

CloudVault is comprised of multiple software enhancements and capabilities. We have a robust and secure VDI solution. Our VDI solution works with our rugged M7 End Point Device with CAC reader or your own device. The secure entry point into your Private Cloud is VDI.



### Ubuntu Pro OS

Hardened Linux Operating system performance tuned for maximum VDI performance.



### Cloud VDI Ecosystems

Advanced TRUE HCI Performance tuned Ecosystems, Compute and Storage with low latency interconnects.



### Cloud VDI Provision ME

Integrated orchestration tool to provision VDI users with integration into LDAP, Active directory and Cloud Directories.



### Cloud VDI™

An advanced secure Desktop and Application virtualization software solution with integration to AD, LDAP and DaaS. Secure two factor authentication.



### VDI Clients

We offer military grade VDI clients to Rugged 10” mobile tablets and support BYOD, “bring your own device”.



### iQ Monitoring Software

A cloud native monitoring solution to ensure a healthy VDI ecosystem as well as cloud native or on Premise Infrastructure.



# Cloud VDI™ - Software Components

A Cloud-VDI platform consists of Cloud-VDI HCI Ecosystem, advanced hardware and software that interact with each other to provide an exceptional Virtual Desktop experience. The basic software components are:

- **Cloud-VDI Manager:** The orchestrator that centrally manages and configures all other components. It is distributed in a disk image, and runs as a *Guest* inside the *Hosts*. The *Guest* containing the Cloud-VDI Manager instance can be moved to any *Host* of the infrastructure, increasing availability and resilience for the environment.
- **Cloud-VDI Agent:** A service running on each *Host* that manages its local resources on behalf of the Cloud-VDI Manager instance. It controls the availability of CPU and RAM, the life cycle of the *Guests* running in the *Host* and the storage objects it can access.
- **Cloud-VDI Config:** Tools available on all *Hosts*, which can be used for configuring VDI and the *Cloud-VDI Manager* instance.
- **Cloud-VDI Dashboard:** Multi-platform GUI application that allows the platform administrators to connect and manage one or more *Cloud-VDI Manager* instances.
- **Cloud-VDI Client:** Desktop presentation tool that allows end-users to access their virtual desktop. There are several native versions for different platforms: Windows, OS X, Linux, Android, iOS, and a live Linux distribution for x86/amd64 terminals.
- **Cloud-VDI Guests:** These are the virtual machines that actually contain the desktops. Each *Host* runs a set of *Guests*, according to its available resources and the *Guests'* needs. The *Cloud-VDI Manager* instance is a special kind of *Guest*.





# Cloud VDI - Thin Client

Cloud Authority provides our clients with complete desktop replacements. These range from the M7, a military grade solution supporting multi-screens with a CAC reader, to the DT10 tablet. These thin clients are all managed via a single pane of glass. The M7 and M3 come with a five year warranty and have a life cycle of ten years or greater. The tablets have a 3 year warranty covering the entire device against accidents or defects.

COVID-19 massively accelerated the move towards the remote workplace. What we expected to happen in 5 to 10 years occurred in less than 6 months. Cloud Authority's cloud VDI thin client drives cost effectiveness, security, end user and administrative ease of use.

**BETTER - FASTER - MORE RELIABLE - DRAMATICALLY LESS MONEY**



## Why CGA's Cloud VDI Thin Clients?



Platform-Independent  
Hardware Compatibility

Cloud Authority's software-focused approach allows the freedom to deploy a broad combination of Cloud Authority End point devices and non-Cloud Authority hardware. This extends far beyond OS support for non-Cloud Authority hardware and includes innovations like the OS Creator tool in Workspace Edition that make supporting heterogeneous hardware at scale simple and cost-effective.



Deployment Speed  
& Simplicity

Seamless integration between Cloud Authority VDI OS and Cloud Authority Universal Management Suite (UMS), including extensive automation, intuitive drag-and-drop workflows, and ultra-reliable endpoint communication, ensure that new device provisioning is fast, efficient, and error-free. Non-Cloud Authority OS devices across an enterprise can be easily converted to Cloud Authority OS from the UMS console.

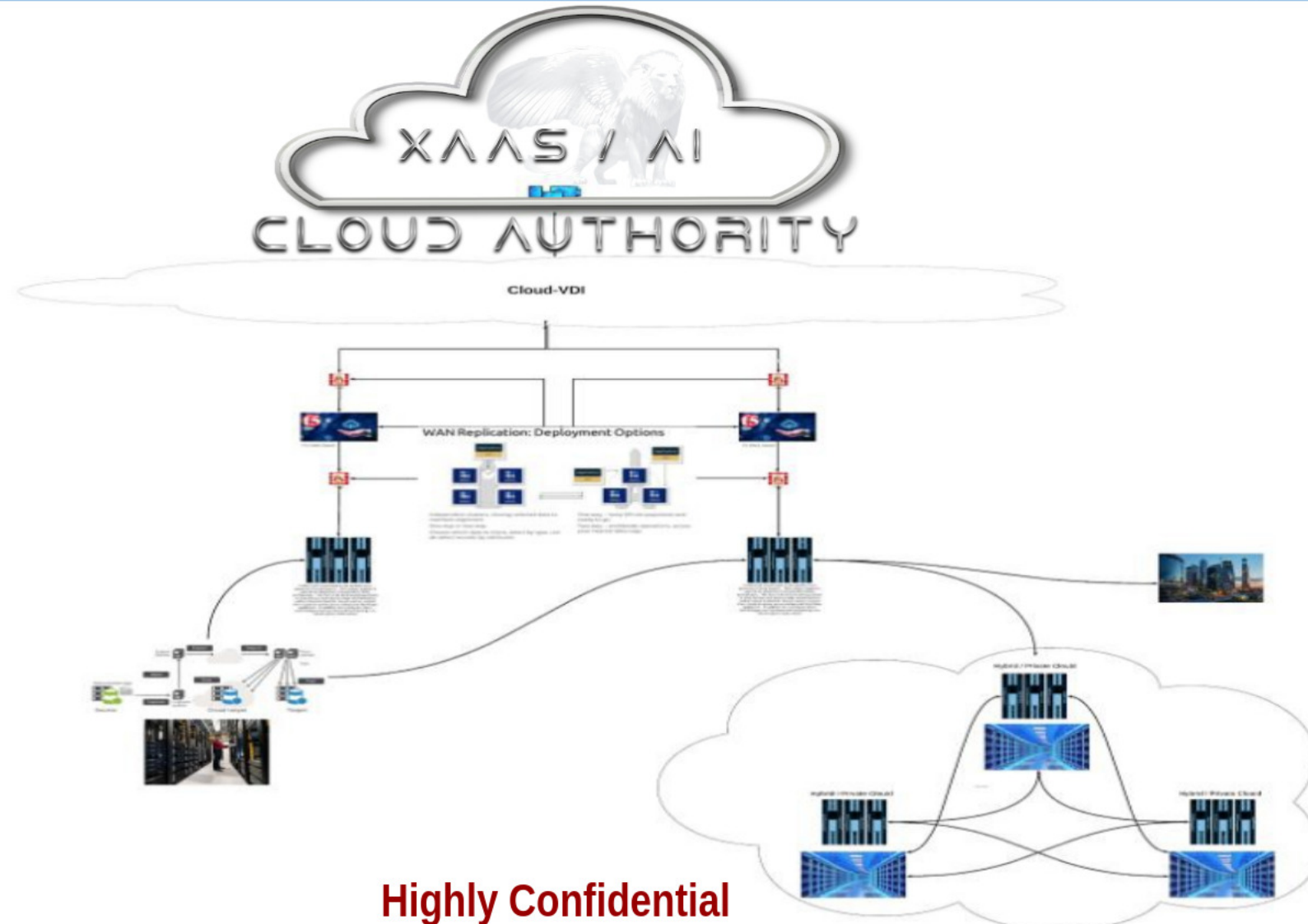
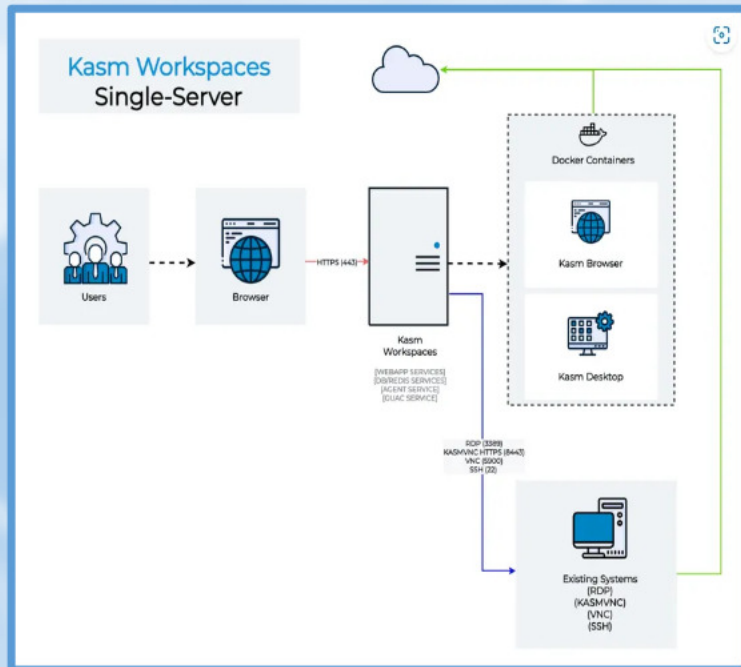


# Cloud VDI™ - Architecture

Our Cloud-VDI solution is an investment in a secure, resilient, future proof solution. 'Our advanced ecosystem is orchestrated with highly redundant components interconnected with the fastest networks with low latency'.

The underlying software has multi-master data replication at its heart to ensure your data is live via real-time replication to one of our many BCP / Disaster recovery sites within our Cloud. We provide On-Prem and Hybrid models to ensure you are never exposed to an outage. We created the "Follow Me" desktop solution for the US military in 2008.

We are the VDI experts since 1994 working with the very first VDI / Thin client solutions from Neoware to the advanced solution we use today. Your desktop and applications follow you everywhere 24x7x365





# Cloud VDI™ - Modular Architecture



Security: Read-Only,  
Modular OS With Complete  
"Chain Of Trust"

Cloud Authority OS has a highly modular architecture that allows administrators to provision endpoints with only the elements required. This strikes a balance between maintaining a small attack surface and enabling the features required for business productivity. Cloud Authority OS also includes a wide range of integrated security protections, including UEFI secure boot and the end-to-end "chain of trust" that verifies all sequential aspects of the boot process from the endpoint hardware (select Cloud Authority devices) or UEFI all the way to the destination VDI hosted cloud.



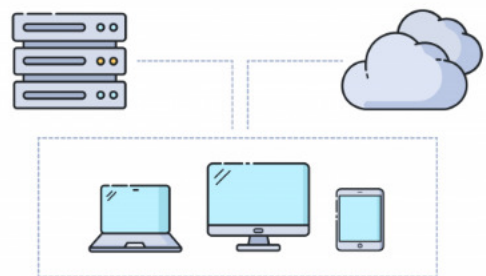
Technology Integrations

Cloud Authority OS has over 90 third-party technology integrations. These include multiple versions of core desktop virtualization clients from vendors like Amazon AWS, Citrix, Microsoft, and VMware, along with an extensive collection of vertical market solutions, performance optimization technology, and peripheral enablement software. We can also run Hy-Brid with Multi-cloud in Amazon AWS, Azure and Microsoft.



Management Efficiency  
& Reliability

Cloud Authority UMS makes it simple to define and organize profiles and configurations and deploy them to devices on both an individual or one-to-many basis by simply dragging and dropping. Reliable communication and optimizations like "buddy updates" make configuration and updates significantly faster and less prone to failure than competing offerings. The UMS Web App adds a rich graphical interface to the UMS console.



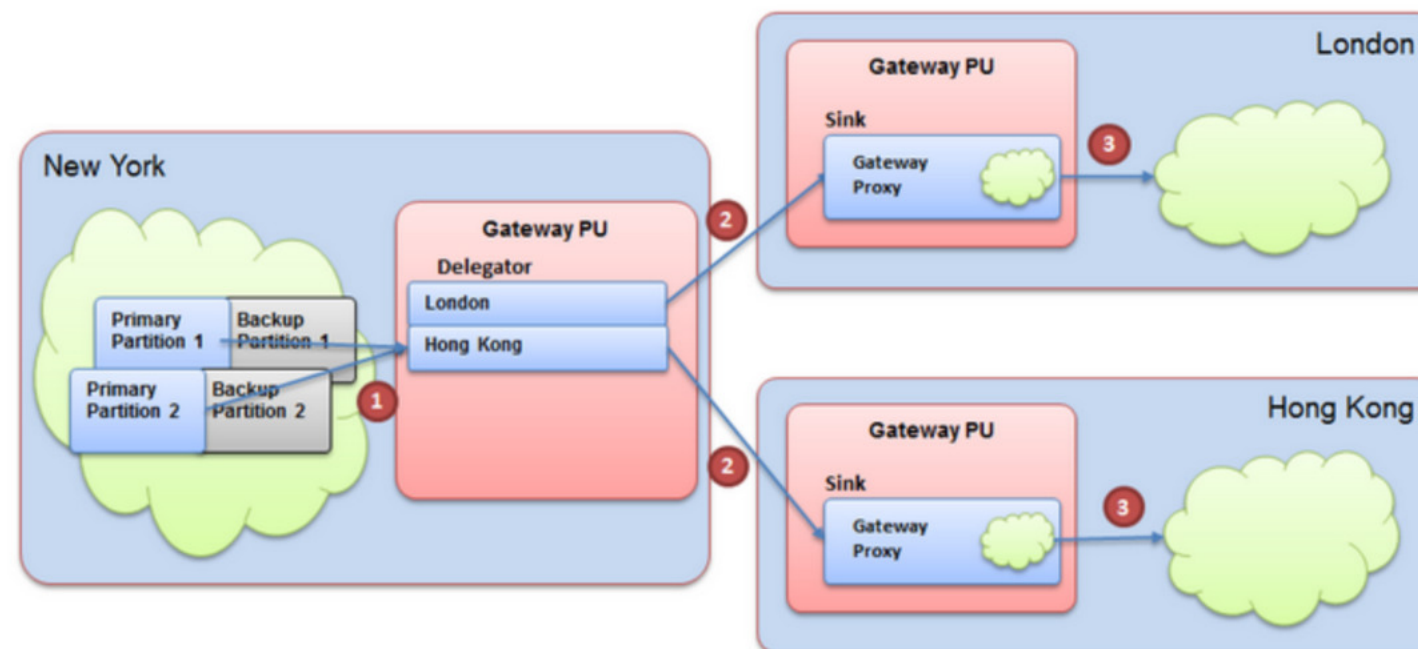
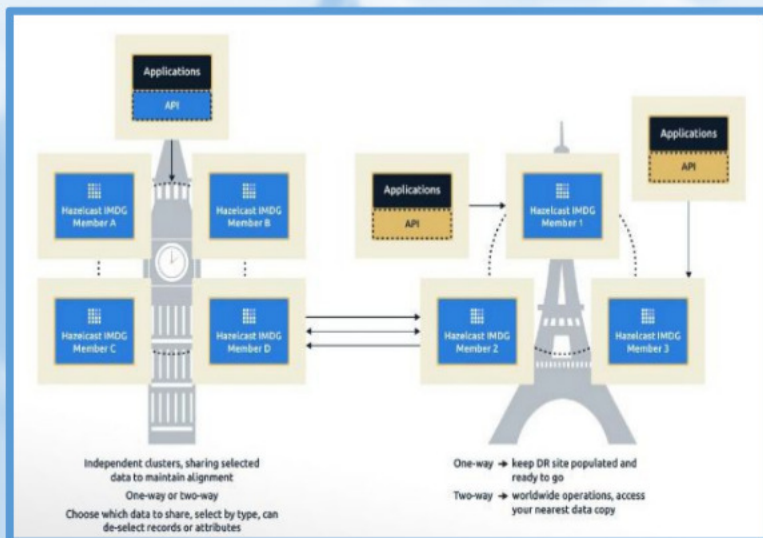


# WAN Caching and Replication

WAN caching and WAN replication are added as part of our CloudVault. We enable your organization to maintain complete session state across multiple Cloud Authority sites with zero data loss. This technology is tied into our WAN acceleration capability as well as our Firewall technology. We enable clients to make the most of their Cloud solution by leveraging an advanced WAN caching solution that also provides WAN replication of session state. We offer multi-site multi-master replication, data-dedup and caching as part of your Cloud subscription model.

Imagine you have different Data centers in New York, London and Hong Kong each running independent clusters. Every cluster is operating at native speed in its own LAN (Local Area Network), but you also want some or all record sets in these clusters to be replicated to each other – updates in the Hong Kong cluster should also replicate to London and New York, and updates in the New York cluster are to be synchronized to the Hong Kong and London clusters.

Cloud Authority WAN Replication allows you to keep multiple clusters in sync by replicating their state over WAN environments, such as the internet.





# WAN Caching Configuration



## MULTIPLE CONFIGURABLE FEATURES TO COVER TYPICAL SCENARIOS

Cloud Authority WAN Replication supports data recovery in both Active-Passive or One-way mode, enables geographic locality in Active-Active or Two-way mode and provides ease of use for test / development environment set-up.



## ON-DEMAND SYNCHRONIZATION FOR A SPECIFIC TARGET CLUSTER

Cloud Authority WAN Replication delivers default synchronization, sending all data to a target cluster to align the state of the target with the source, as well as Delta Synchronization using Merkle Trees, which synchronize only the different entries, instead of sending all entries.



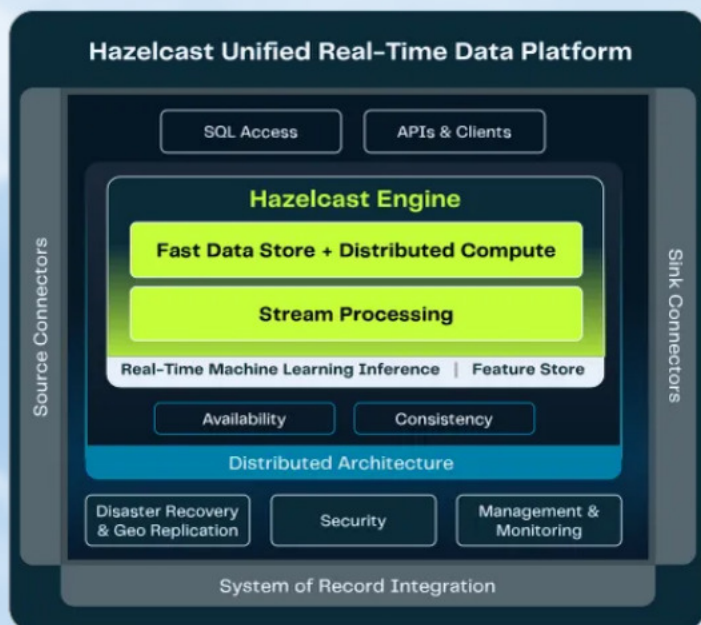
## SUPPORTS MULTIPLE DATA STRUCTURES AND MERGE POLICIES

Cloud Authority WAN Replication provides support for Cloud Authority (IMap): PutIfAbsent, Higher Hits, Pass-through, Latest update, as well as JCache (ICache): Higher Hits, and Pass-through.



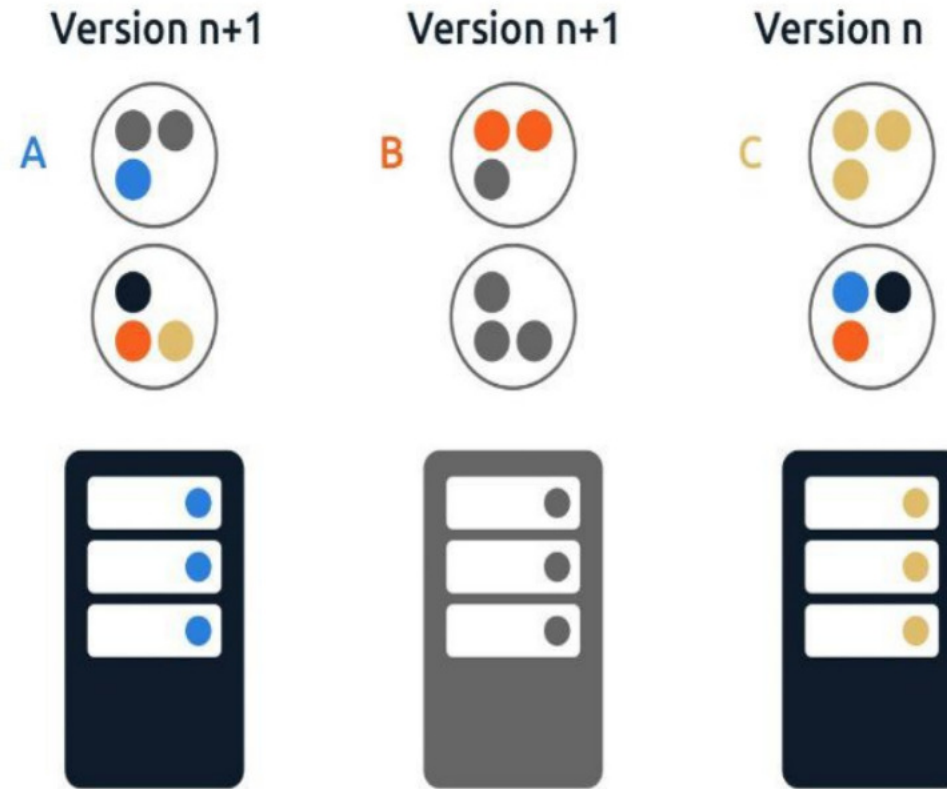
## GENERIC WAN REPLICATION ENDPOINTS

Cloud Authority WAN Replication includes WAN Batch Replication, which sends replication events to the target cluster after a pre-defined number of replication events or a predefined amount of time, as well as SolaceWanPublisher, allowing WAN Replication users to use Solace.



# WAN Caching Customer Experiences

Improve customer experience and reduce downtime, avoiding service disruptions, data loss, and interruption to execution



### Member Rolling Upgrade

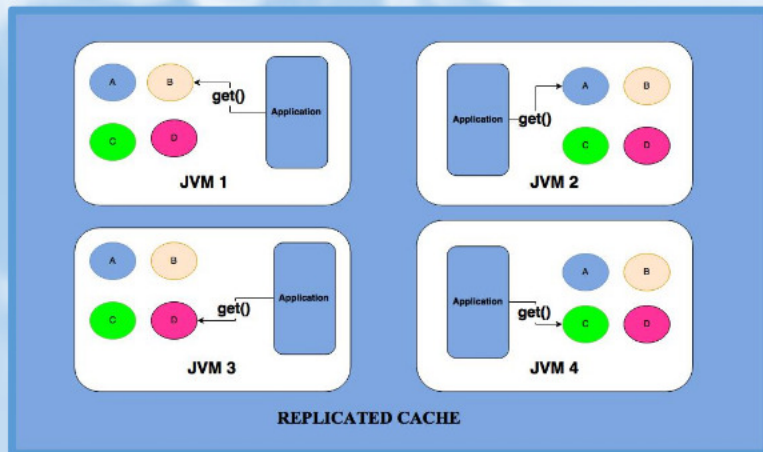
Upgrade cluster members without service interruption in embedded mode (no clients) or client-server mode (clients are connected to a cluster).

### Client Rolling Upgrade

Upgrade clients individually with no interruptions to other clients, even when working off a central cache.

Supports mixing clients of different languages and versions in one cluster.

First member upgraded but operates in version n mode, to be compatible with other members.

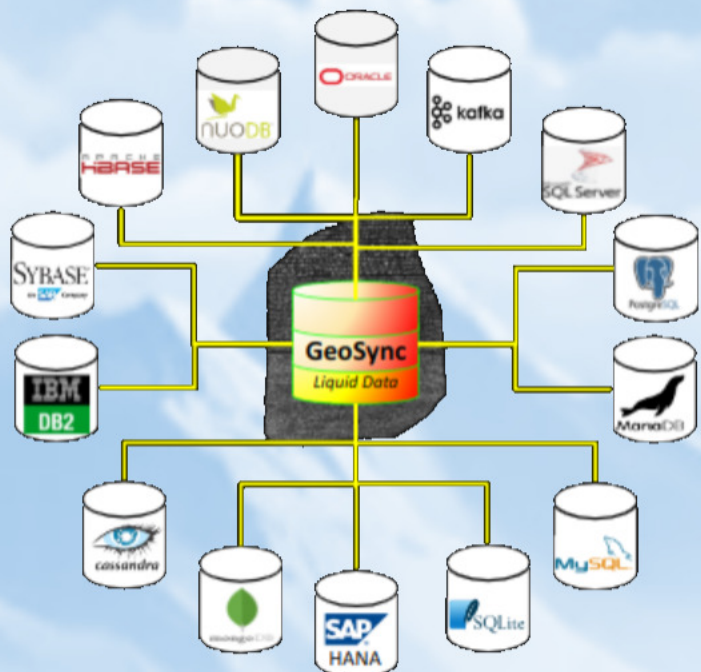




# GeoSync - Universal Database Replication

How do we bring value to your business?

We provide any database to any database replication. We can show you how to eliminate Oracle and Microsoft licenses from your environment via push button migrations. We can upgrade or migrate you while maintaining compliance with zero risk to your company. There is no Snow Ball or Ice Cube, or other risky solutions from other providers. These introduce risk to your organization and your clients. We use secure data links to your site and enable data replication to CloudVault running on our patented HCI Cloud Engines.



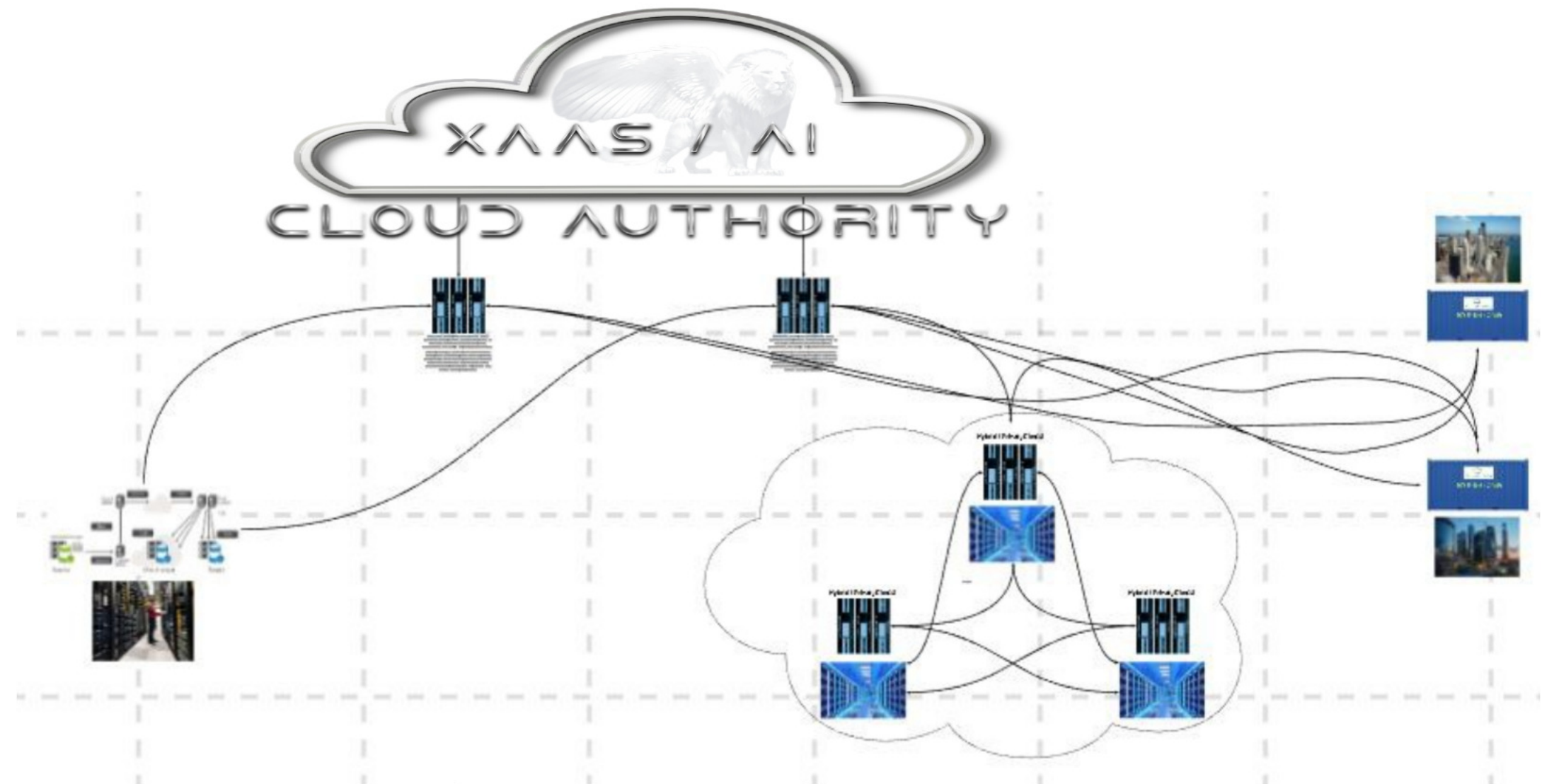
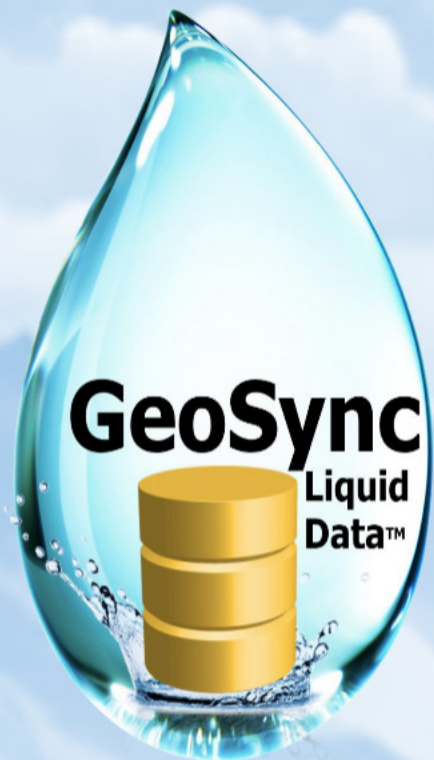
Any Database to Any Database, True Liquid

Relational Databases	Streaming Platforms
ORACLE, PostgreSQL, Microsoft SQL Server, MySQL, IBM DB2, SYBASE	confluent, RabbitMQ
Informix, INGRES, EDB POSTGRES, TIBERO, VOLTDB	Mobile Databases
TERADATA, SAP HANA, Microsoft SQL Azure, Amazon REDSHIFT, Greenplum, snowflake	SQLite, Firebird, H2
NoSQL Databases	
mongoDB, cassandra, APACHE HBASE, Ignite	



# GEOSYNC - Global Replication

More than a Cloud replication solution, GEOSYNC enables Cloud Authority clients to truly replicate around the globe and establish geosynchronous replication to multiple sites and alternate solutions like mobile X-MVS. This solution also enables clients to move from any database to any database i.e. **Liquid Data**. Eliminate legacy databases and license cost from Oracle, DB2, Sybase, MSSQL migrating to Cassandra, Mongo, MySQL, Postgres etc. Try our turnkey migration from .net & MSSQL to Open .net & Postgres. This solution offers **painless migrations** from one technology to another, making upgrades easy and eliminating downtime.

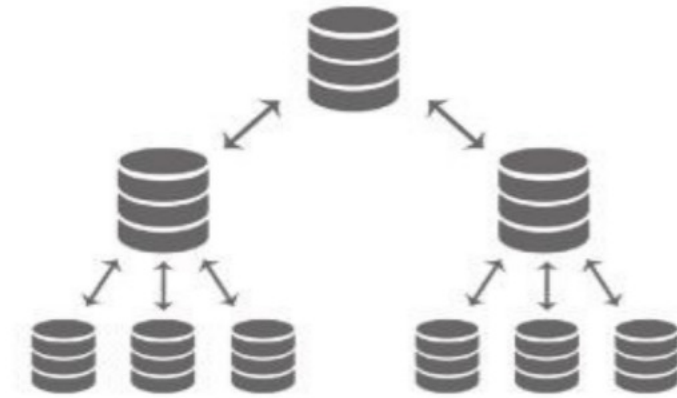




# GEOSYNC - Replication Modes

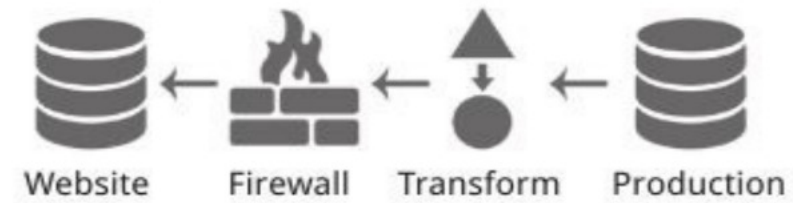
## DATA SYNCHRONIZATION / CONSOLIDATION

Data from multiple databases across the enterprise are synchronized and combined, working across low-bandwidth connections and withstanding periods of network outage. Thousands of databases can be connected to a central one using one or more tiers of synchronization.



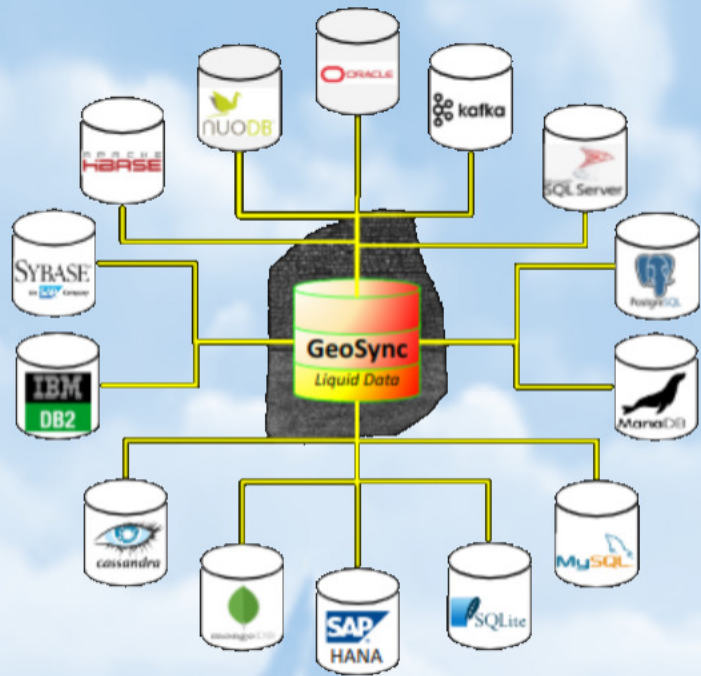
## BRIDGE BETWEEN DATABASES

Data is transformed during replication between different databases. Secure web transport protocols are used to replicate from a protected database to a front-end database.

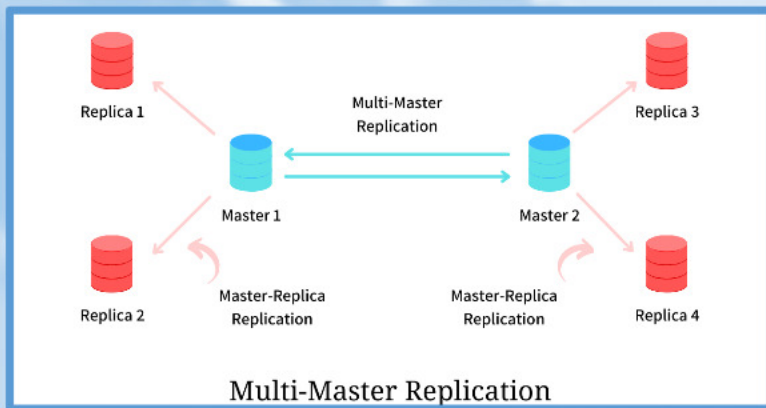


## WORKLOAD DISTRIBUTION

The operational database is replicated to a data warehouse or a reporting database. The main application continues to use the operational database, while the secondary database is used for reporting and analysis. The data can be filtered and transformed to enhance reporting.




Any Database to Any Database, True Liquid





# Directory as a Service (DAAS)


Directory-as-a-Service provides a unified point of user management and authentication without any need for on-prem servers or infrastructure. Securely connect users to their workstations, servers, networks, apps, and files. Our DaaS service can serve as your authoritative directory or defer to existing identity providers depending on your needs.




**Manage Identities & Access Everywhere**  
Centralized user identity and attribute management to provision, control, and secure a distributed workforce from a single platform entirely from the cloud, wherever you are.



**Extend & Sync Active Directory**  
Connect to and get the most from your current Active Directory® domain and expand the tools that drive your business across clouds and resources, like Azure®, O365®, and G Suite®, and Human Capital Management systems like Workday.




**Secure Any Device, Anywhere**  
Easily manage system security policies, system MFA, MDM, and user system access with JumpCloud's unified endpoint management for Windows, Mac, and Linux® workstations & servers.



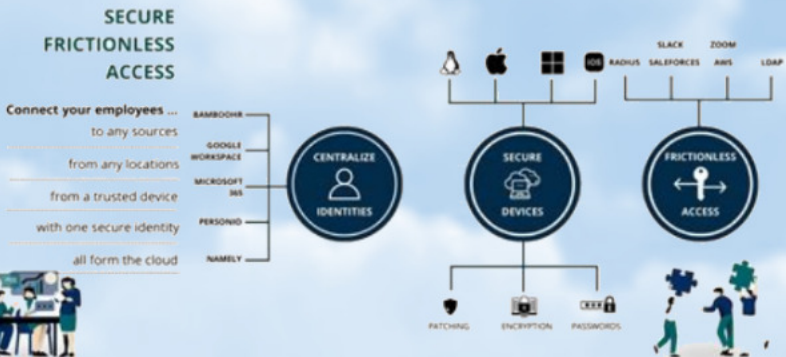
**Provision to Apps Instantly**  
Provision and secure user authentication to your company's critical web-based applications and services like AWS®, Salesforce®, GitHub®, Slack®, Zoom®, and many more.



**Enable Secure MFA Everywhere**  
Guard user identities with extra layers of protection on your company's resources via MFA with TOTP, WebAuthn Keys, or DUO®.



**Automate Your Day**  
Save time, simplify integrations, and scale IT ops through code and tools. Use JumpCloud APIs, Directory Insights event logs, System Insights data, & the JumpCloud PowerShell Module.

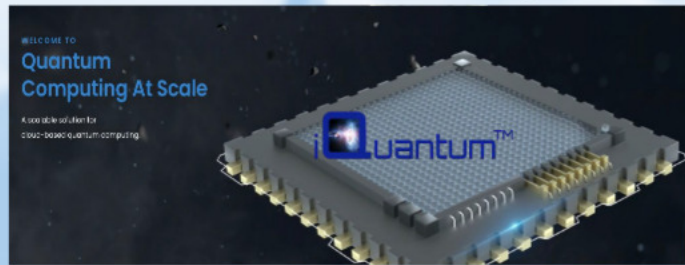


- ✓ Single pane of glass control over all OSs
- ✓ Password rotation & complexity management
- ✓ MFA endpoint protection
- ✓ Cross-OS GPO-like enforcement
- ✓ Apple MDM
- ✓ Event logging for user authentication
- ✓ RESTful API for automated system configuration and fleet management at scale
- ✓ No VPN for system binding and 'check in'



# Roadmap - 2026

Cloud Authority has you covered from Military spec micro-systems that fit in the palm of your hand, to interactive rugged all in one displays to hardened Edge AI / Cloud systems like the E4500 systems to Hyper-Scale E7000 Cloud Vaults that scale beyond 1 million cores and Exabytes of storage. We deliver Quantum today, scaling to 1000 Qubits and beyond.



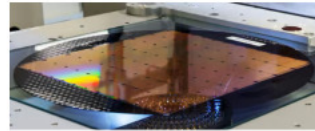
**From 1 qubit to 1000s:  
Without Sacrificing Performance**

Advanced capabilities and scale-up: it seems like you must always choose one over the other. Not anymore. The Quantum Orchestration Platform is a scalable solution for cloud-based quantum computers capable of addressing over 1000+ qubits while maintaining its advanced capabilities. From highly complex AI-based multi-qubit calculations to multi-qubit quantum error correction, it's even the most complex quantum protocols on the largest quantum processors.



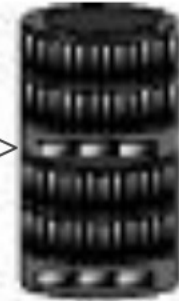
Units self cooled via iStorm Cooler  
No Data Center cooling needed

FORK



Moving to FIN based large scale processor with integrated I/O and next generation Memory to facilitate incredible performance gains and density

Photonics Shift & FIN



2027 - 75% complete to date

Show me a single competitor with anything close to our technology and I will eat my Navy hat. - JRJ



**X-MVS**  
The power & scale of the Cloud in a hardened mobile armored box!

X-MVS System Config	Cores	RAM / SRAM GB	FLASH NVME PB
E7000 Compute - AmpereOne	58,368.00	1216	109.2
E7000 Storage - Intel 6700	4,864.00	158	37.5
E7000 AI	1,200,000.00	44	2

TNG  
Sovereign Group

Every Cloud Authority device is hardened Cloud capable with full array for software features and cyber warfare capable. The majority have advanced replication technology to ensure all remain in sync with one another if needed for zero data loss. Smaller handheld devices VDI ready along with a host of VDI mobile devices.



# Cloud Sites

**We have opted to build our first Cloud in Green HiTrust/ FISMA certified data centers. These sites were selected to provide our clients with resilient green high speed alternatives to AWS and the others.**

- All sites are interconnected with redundant 400GBps interconnects
- All sites have redundant commercial utility grade power to the sites
- All sites are located in purpose built zero hazard secured locations
- All sites have redundant generators systems with onsite fuel reserves
- All internal power systems protected with inline UPS Battery systems
- Future Cloud Authority sites to be self powered 100% off grid

**The picture to the lower left is the Vegas North FISMA site, secure, clean and green**





# Cloud Authority Future Sites

One of two proposed sites Cloud Authority could purchase to build out its own High Trust / FISA certified cloud sites.

This is a hardened Bunker site in North East Texas. It is a certified FISMA / Hi-Trust hardened bunker site, with offices, and solutions to sustain employees on-site for an indefinite period of time.

This facility enables Cloud Authority to maintain Cloud operations for an extended period of time in the event of a geographical or region outage. Its sister Data Center in Nashville TN and its redundant FISMA pairing sites in Vegas North and other undisclosed locations give Cloud Authority an extensive edge over its competition.

Our CloudVault sites provide clients with 100% data survivability. These sites enables client to survive natural and man made disasters. Providing them with peace of mind.

Compliance is Everything  
Each Cloud site must  
meet High Trust /  
FISMA certifications for  
our CloudVault solutions





## Summary

iStormCloud “Cloud in a Box” can be used for many use cases, be it a small enterprise needing VDI, application servers to the world's largest global enterprise and everything in between. With our mobile VDI solutions and Edge devices we can replace legacy solutions for first responders in their vehicles, securing and protecting viable data in our CloudVault.

Our migration methodology is simple, we use GeoSync to migrate data from legacy compute to modern databases, or solutions with our simple to use interfaces companies can dramatically cut the time to market without breaking the bank. This literally shatters the chains keeping innovation back, freeing your teams to embrace and leverage their creativity.

**Imagine the impossible, then reimagine what's possible!**  
**iStormCloud “Cloud in a Box”**





Cloud Authority  
is a  
TNG



Sovereign Group  
held company

# TNG Sovereign Group list of companies for 2026



Sovereign Group



## Where Creativity, Innovation and Design Take Flight!



# Our Founder

John is a proud United States Navy Veteran who served as an Electronic Warfare Operator with VP-46. Graduating top of his class, John excelled in academics and in his service career. He set many military academic records, still in effect to this day. For this, and his commitment to technological innovation, John has been awarded multiple Military and Presidential awards. John's passion for technological innovation, and a commitment to build a better world, has driven him to build World changing solutions.



John has built a successful career in the civilian world as an IT Consultant. With a natural curiosity of all things technical, and a certified IQ exceeding 159, John has delivered value creating solutions for the Department of Defense, Wall Street Financial Services and numerous federal clients including NAIC, AIA, Lockheed Martin, NASA, Northrop Grumman, IRS, US Navy and US Air Force. John's background in Electromagnetic spectrum from the US Navy has given him a unique insight into all things Tesla. John build the first MagDrive in 2015, redesigning the prototype to its current production ready MagDrive - MagLev system.

Not afraid of rolling up his sleeves, John created the first application and migration patterns used on Wall Street. Getting involved in the day-to-day analysis and understanding the business drivers, John's work and solutions directly impacted a financial services client to deliver OPEX efficiencies and create increased value across their clientele. John created the DCMP program and managed the team on the five-year effort overseeing billions in assets and budgets. John built the advanced prototype iStormCloud HCI E4500 "Cloud in Box" which encompasses advanced technology and software to provide end to end Cloud, Cyber Security and VDI solutions.

John is proud to hold the only patent for hyper converged Eco systems. He is looking forward to building a better world with numerous more trade secrets pending for submission as patents on advanced technologies.

