



*Use Case - Remote and Branch Office IT*

# Hyperconverged Fabric

– Don't Settle for an HCI

## Empower your Remote and Edge IT Landscapes with Hive Fabric™

**Remote and Branch Offices (ROBO)** present a big challenge in terms of Logistics and Management to IT teams around the world. For Enterprise and MSP customers, throwing a couple of servers into remote locations may not be as easy as it sounds.

### Challenge

Businesses today do not treat Information Technology just as a support system. Including Information Technology as a core component of the business and strategy is key to successful outcome. With improvements in technology and growing competition businesses have to ensure the highest level of customer satisfaction to retain them. Technologies that touch end-users, the requirements at the Remote and Branch Offices (ROBO), Store Fronts, Point of Sales, and Distributed Edge IT locations, continue to change rapidly, consequently it's important to keep them up to date to compete and provide the best user experience. Distributed Edge IT scenarios are also rapidly evolving with field-based IT infrastructures that need processing capabilities and security at the point of data collection. Retail Kiosks, Information Kiosks, Mobile Offices on Land, Water, or Air, Tactical Military Operations, and even Endpoint Security needs, cannot be catered by public cloud due to latency, security and connection realities.

Traditional Datacenter Infrastructure presents a variety of challenges to implementing Remote Office and Branch Office (ROBO) solutions:

- ⊕ Unreliable and/or low **bandwidth network connectivity**
- ⊕ A complicated solution involving **multi-vendor and complex licensing models**
- ⊕ **Complexity to deploy** and maintain multiple remote sites
- ⊕ **Connectivity challenges** and data security concerns
- ⊕ **Compliance issues** in industries that are highly regulated
- ⊕ The need for **cost-effective compute and storage** requirements
- ⊕ **Manageability** is a challenge with the **complex management layers**
- ⊕ **Ensuring availability** and the need to mitigate downtime
- ⊕ **Power and footprint** limitations onsite
- ⊕ **High-cost skilled labor** required to manage and maintain complex solutions

Modern Branch offices, Small offices, Manufacturing facilities and other types of ROBO's demand a reliable, cost-effective, easy to manage and deploy solution.

## Why Hive Fabric™ for ROBO and Edge IT

Software-based Hive Fabric is built on a Zero-Layer Architecture which drastically simplifies remote and Edge IT architecture requirements. Hive Fabric is easy to deploy and includes a complete software defined datacenter on ANY commodity x86 hardware, eliminating the need for expensive proprietary multi-cloud vendors and proprietary hardware. Hive Fabric delivers flexibility and scalability whether you are deploying on a single Edge IT device or millions of devices. With Hive Fabric, customers are given the ability to quickly deploy on remote IT infrastructure in as little as 20 minutes. The only requirement needed is a USB Drive with Hive Fabric installer and your commodity hardware. Once installed, Hive Fabric's unique Message Bus eliminates the need for multi-vendor management layers, in turn customers can refocus highly skilled and expensive IT staff onsite. Hive Fabric Message Bus also enables Artificial Intelligence (AI) and Machine Learning (ML) capabilities making it future ready and protect your investment.

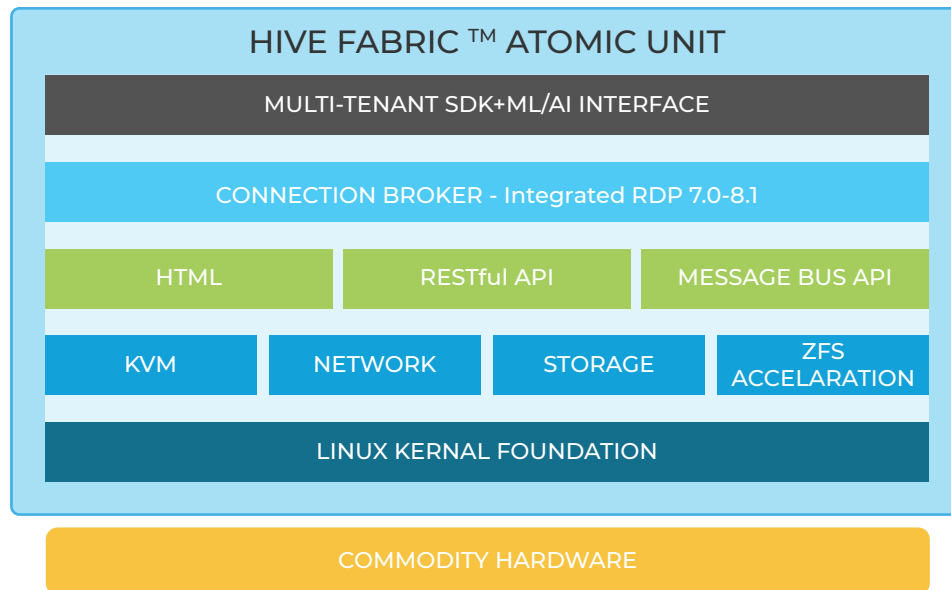
### Benefits

- Eliminate multi-vendors and complex licensing models
- Eliminate the need for expensive proprietary hypervisors
- Build your infrastructure on top of any commodity x86 hardware – Green or Brown Field
- Eliminate the management solution bloat
- Compose your Edge IT infrastructure in as little as 20 minutes
- Compose or collapse based on demand
- Availability that ensures business continuity with highly resilient swarm architecture
- No need for highly-cost skilled labor
- Lower TCO and reduce IT expenses by up to 70%
- Eliminate latency issues and comes with an inbuilt security

### Hive Fabric™

Hive Fabric Software Defined Datacenter Solution delivers commoditized cloud computing consistent with the public cloud on customer private premise. We accomplish this through engineered simplicity and performance at a fraction of the cost associated with both public and private environments. Hive Fabric's hypervisor is based on the industry-leading KVM infrastructure to virtualize and abstract the physical building blocks in the datacenter. With the lowest overhead of any hypervisor, customers can expect improved density while maintaining highly performant desktops and servers for end-users and applications.

Hive Fabric brings to market an industry first, all in one Software Defined Datacenter in an easy to deploy and manage platform. Our software installs on a wide range of x86 commodity hardware, allowing customers to quickly and efficiently build out private clouds at significantly lower cost.



The solution eliminates the need for complex licensing and multi-vendor management and includes a unique Message Bus Architecture that is Artificial Intelligence (AI) ready. Hive Fabric allows customers to have their Private Datacenter at half the cost of Public Cloud on a platform that runs and manages a wide variety of applications and services. Our architecture is used by customers across multiple verticals with diverse workload types including VDI, VSI, Grid Compute and Hadoop environments. With HiveIO Fabric, organizations of all sizes and requirements can implement a holistic, easy to use, end-to-end stack that provides computing at a significantly reduced cost.

## Hive Fabric™ Advantages

- Zero-Layer stack – no vendor bloat (hypervisor, orchestration, web portal, broker, and native storage acceleration)
- Unique Message Bus Management – removes management layer.
- NO Virtual Centers or DBs
- Universal REST Interface – easy to create custom automation using highly available development resources
- Flat license model with no uplifts
- Clients span all verticals (Healthcare, Finance, DOD, Legal, MSPs)
- Clients use all guest types (VDI, VSI, GRID, and HADOOP)
- Natively multi-tenant

## USE CASE

### I. Large Bank with ROBO

Remote Office and Branch Offices need to mitigate the risk of downtime due to lack of connectivity with headquarters in order to continuously run their business effectively. They also need to guarantee data security and good performance with proper storage capacity under a variety of different circumstances, such as connectivity, space available, power and local resources. Retail bank branch used to localize cloud guests to mitigate for any WAN outage/ sluggishness. Challenges multiply in the regions where the connectivity is poor and high bandwidth is expensive or not available.

#### Challenge

Availability, Management, Cost, and Security are the main issues ROBOs face when deploying a local Datacenter. Branches have different sizes so while some might be able to operate with a small number of servers others may need increased storage capabilities. The availability of specialized resources onsite may also be limited. In many ROBOs, centralized IT delivers services to the remote sites from a centralized location over a WAN. By centralizing IT, the company eliminates the cost of skilled IT staff onsite and reduces the risk to business continuity. However, the major drawbacks are often poor application performance, scattered management, and difficulty correcting issues that arise in remote sites.

#### Solution

Hyperconverged Fabric infrastructure can bring simplicity to this complex scenario and by complexity, we mean hundreds and thousands of individual locations managing hardware separately. Software-based Hive Fabric Atomic Units are built based on the Zero-Layer Architecture which drastically simplifies the remote and Edge IT infrastructure. Hive Fabric is easy to deploy as it comes with the built-in Hypervisor. When moving to a Hyperconverged Fabric solution, every site will gain centralized administrative capabilities, eliminating the need for dedicated staff at each branch. Hive Fabric addresses all of the challenges ROBO's face with a cost-effective, easy to deploy and operate solution that scales as the office or the needs grow. Banks and organizations that are investing in servers for distributed sites will benefit from Hive Fabric to implement a ROBO solution on any existing infrastructure. Hive Fabric allows branches to easily deploy and manage their local Datacenters without the need of expensive proprietary hardware, mitigating the risk of downtime due to lack of connectivity to the headquarters, which can be extremely expensive for bank offices.

Hive Fabric is an easy to deploy and manage solution for local Datacenters, that does not require local IT staff to manage the solution. By having the local servers, remote branches mitigate the risk of downtime due to connectivity issues and drastically decreases the bandwidth required with the ability to run local jobs on local servers.

## Postcondition

The use of Hive Fabric on ROBOs will simplify local management, allow scalability as the needs or the business grows, with minimum space requirement for hardware, power savings, easy VDI deployment, and management without compromising user experience.

## CAPEX and OPEX Savings

HiveIO offers superior features and performance at almost half the cost compared to the existing solutions in the market. Hive Fabric eliminates expensive multi-vendor licensing and removes the need for a separate management layer. HiveIO offers a more robust and flexible architecture based on commodity hardware and KVM. The unique Message Bus offers Artificial Intelligence (AI) and Machine Learning (ML) capabilities making the solution future proof. Hive Fabric provides up to 90% power savings compared to legacy Datacenters and easily beats the current HCI solutions available in the market on power savings.

## II. Mission Critical Remote Office, Branch Office Deployment

DOD Special Forces: On-demand mobile forensic unit utilized for reconnaissance. Soldier, tank, humvee and scout drone link as a mobile datacenter and on-demand mobile datacenter utilized for Embassies. This scenario comes with the additional challenges that include the mobility requirements, Military grade robustness that's required and Connectivity issues because of the areas its gets deployed.

## Solution

Hive Fabric technology that can be installed on any kind of hardware, including the smallest portable servers offering extreme mobility and at the same time with easy to compose and collapse capabilities suits best for the operations that require quick and stealth execution. A junior administrator can deploy a Hive Fabric mobile Datacenter in as little as 20 minutes.

## The HiveIO Promise

### **Performance:**

The Fastest performing VDI & VSI experience. 40% more efficient by removing traditional vendor bloat - agents, services and computer sprawl.

### **Scalability:**

A new unprecedented scale using 85% less storage than comparable solutions. More functionality in less real estate.

### **Safety:**

All the security, control, and governance of the private cloud with the value of the public cloud.

### **Simplicity:**

A virtual unified platform. One entire stack in one cohesive cloud environment for provisioning, security and remote management.

### **Cost:**

Reduces the cost of VDI implementation by over 50%. HiveIO has demonstrated a 75% saving over solutions available from the competition.



T (415) 340-2089 | F (415) 715-9028  
[www.hiveio.com](http://www.hiveio.com) | [info@hiveio.com](mailto:info@hiveio.com) | [@HiveIOInc](https://twitter.com/HiveIOInc)

HiveIO delivers the economics and simplicity of the public cloud to the private and hosted data centers, empowering businesses with the next generation one stack hyperconverged infrastructure and enable them with the composable infrastructure tools to meet their demands offering superior scalability and seamlessly run any applications and services.

[Learn more at www.HiveIO.com](http://www.HiveIO.com) or follow us on [@HiveIOInc](https://twitter.com/HiveIOInc)

©2018 HiveIO, Inc. All rights reserved. HiveIO is a trademark of HiveIO Inc., registered in the United States and other countries. All other brand names mentioned herein are for identification purposes only and may be the trademarks of their respective holder(s).