



# Cisco Small Business IT Webinars

*[cisco.com/go/smb](https://cisco.com/go/smb)*



*Fuel My Business*

# AGENDA

1. Introduction
2. Solution Overview – *HyperFlex + AppDynamics*
3. Case Study
4. Demo – *HyperFlex + AppDynamics*
5. Q&A
6. Conclusion



# Solution Overview:

*HyperFlex + AppDynamics*

## Our Speaker...



Shawn Pomare

**Build Your Own**

vs

**HyperFlex**

Storage



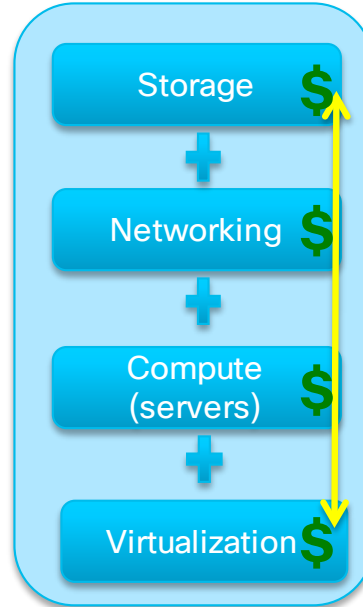
Networking

Compute  
(servers)

Virtualization

*Patching  
Firmware  
Updates  
Interoperability*

- Complexity
- Multiple Patching Cycles
- Many skillsets
- Finger Pointing Support
- Interoperability Testing nightmare



- Pre-Tested, Pre-Configured
- Treated as a "System" – not a bunch of pieces assembled together
- Single call support
- Lower CapEx, Lower OpEx!



# One Architecture for Operational Simplicity

## UNIFIED MANAGEMENT MODEL

### UCS MANAGEMENT



HX Edge UCS Mini 5<sup>th</sup> Gen UCS



Mainstream Computing

### CLOUD CENTER



HITACHI NetApp IBM DELL EMC PURE STORAGE



Converged Infrastructure



HyperFlex Systems



Hyperconverged Infrastructure

### ACI



UCS C240

UCS S3260



Software-Defined Storage

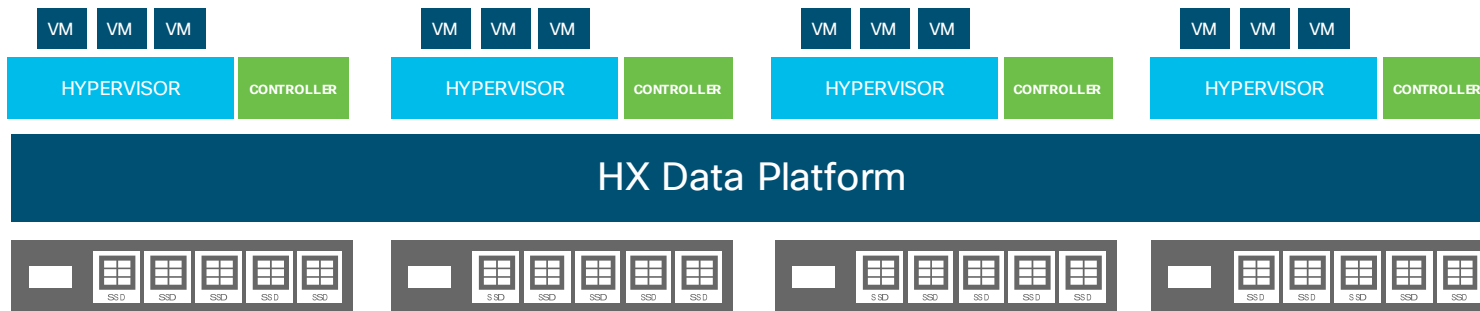
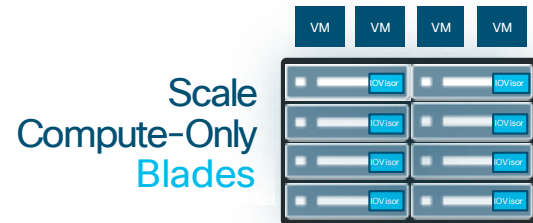
Scale Out

EDGE

CORE DATA CENTER

CLOUD

# Independent Scaling of Compute and Capacity



Non-HyperFlex Hosts Can Connect to Storage with IOVisor



# Primary HyperFlex Use Cases



## Virtual Desktop Infrastructure

- Low upfront costs
- Consistent performance
- Predictable scaling



## Server Virtualization

- Reduce operational complexity
- Adaptive scaling
- Always-on resiliency



## Test and Development

- Agile provisioning
- Frequent iterations
- Instant cloning and snapshots



## Large Remote Branch Office

- Simple deployment
- Centralized management
- No “fly-and-fix” missions



## Databases

- Consistent, low-latency
- High IOPS
- All-flash nodes

# High Resiliency, Fast Recovery

Platform can sustain simultaneous 2 node failure without data loss; replication factor is tunable

If a node fails, the evacuated VMs re-attach with no data movement required

Replacement node automatically configured via UCS Service Profile

HX Data Platform automatically re-distributes data to node







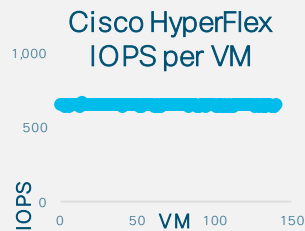


**CISCO HYPERFLEX**  
MULTICLOUD  
PLATFORM

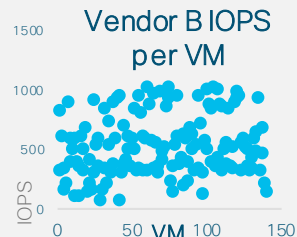


**#1 PERFORMANCE**

**#1 in Performance  
and consistency**



Each dot represents a Virtual Machine and its average IOPS over an hour of load



Log structured file system with  
dynamic data distribution

Purpose built for HCI

Highest performance and consistency  
for the most mission critical enterprise  
applications

### Certification SAP® Standard Application Benchmarks

The SAP Sales and Distribution (SD) Standard Application Benchmark performed on November 22, 2017, by Cisco Systems in San Jose, CA, USA, was certified by SAP on behalf of the SAP Benchmark Council on December 11, 2017, with the following data:

Number of SAP SD benchmark users: 11,348  
Average dialog response time: 0.88 seconds  
Throughput: 3,750,000  
Fully processed order line items per hour: 1,251,870  
Dialog lines per hour: 3,750,000  
SAPS: 82,580  
Average database request time (dialog/update): 0.078 sec / 0.027 sec  
CPU utilization of control server: 94%  
Operating system, control server: Windows Server 2012 R2 Datacenter Edition on VMware vSphere 6.5 Update 1  
Operating system, central server: Microsoft SQL Server 2013 Enterprise Edition  
SAP Business Suite software: SAP enhancement package 5 for SAP S/4HANA

#### Configuration:

No. of Servers	Usage	Hardware	Segmentation
1	Central Server	Cisco HyperFlex HPEP430C-NA30-2 processors / 28 cores / 56 threads, Intel Xeon Processor E5-2690 v4, 2.80 GHz, 48 GB L3 cache and 256 GB L2 cache per core, 38 TB L3 cache, 512 GB main memory	One VM with 56 vCPUs/20GB RAM running on one HyperFlex vSphere host. HyperFlex software version: 0.8.16 four server cluster

Certification number: 2017050

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1<sup>st</sup> Hyperconverged system  
to pass stringent [SAP SD  
Benchmark](#)



# Solving Key Customer Challenges

## Moving at the Speed of Business



Deployment of computing, networking and storage resources in less than 1 hour

## Operationalizing Speed and Simplicity



Single management plane for converged and hyperconverged solutions

## CFOs Expect a Cloud Economics On-Premise

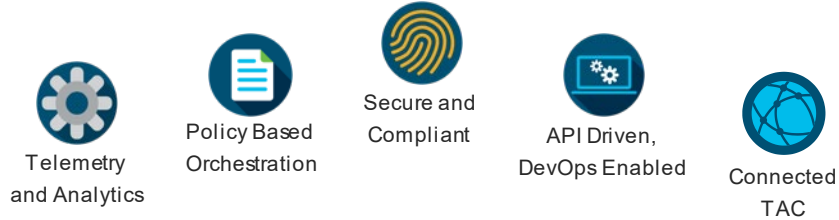


Purchasing model and independent scaling allow to pay as you grow



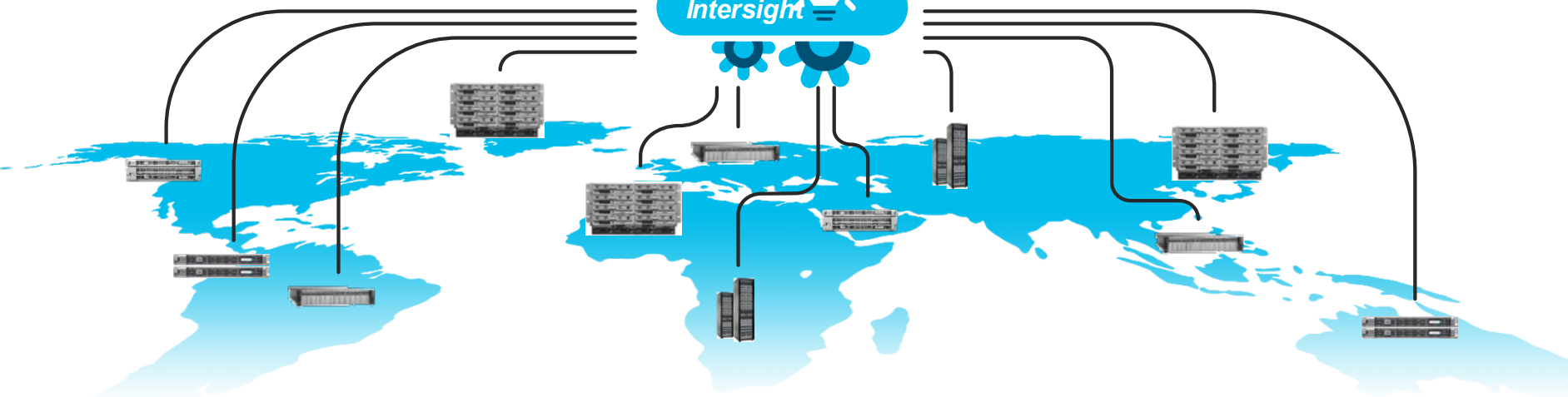
Cisco HyperFlex Systems

# Cisco Intersight Intelligent Centralized Management

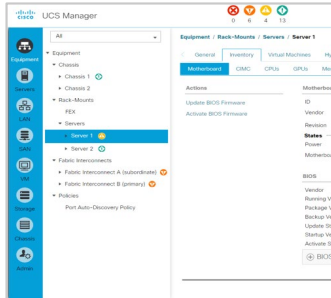


SaaS  
Simplicity

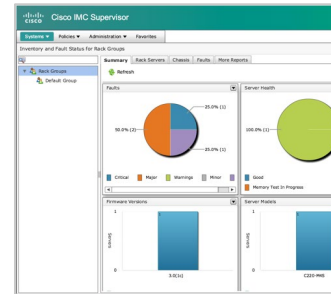
Actionable  
Intelligence



# Unified Interface, Management Tools



Operatio



Remote / Bran

Dashboard overview with various health and inventory metrics.

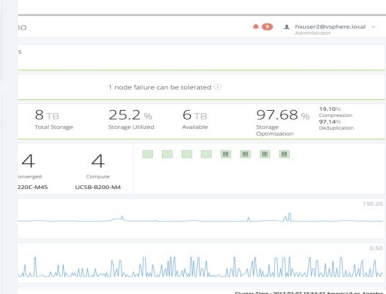
Category	Count	Status
Server Health	10	WARNING
Server Health	3230	HEALTHY
HX Health	24	CRITICAL
HX Health	10	WARNING
HX Health	374	HEALTHY
FI Health	118	HEALTHY
Servers Inventory	3240	TOTAL
HX Cluster Inventory	408	TOTAL
FI Inventory	118	TOTAL
Server Model Summary	3240	TOTAL
Hardware Summary	360	STANDALONE
Hardware Summary	2880	MANAGED

Performance

## Cisco Intersight

Hardware	Configuration	Status
ES 1/3 JVG-SJC UCSB-8200 M3 12 Cores 128 GB RAM 5.6Tb FC11821750X	LG-DEM0-3 3.12TB.3.12GB P/W Ready	Power Off Standalone OK Fault Cleared Power Off Locator LED Off
ES 1/7 JVG-SJC UCSB-8200 M3 12 Cores 128 GB RAM 5.6Tb FC11821750X	LG-DEM0-7 3.12TB.3.12GB P/W Ready	Power Off Standalone OK Fault Cleared Power Off Locator LED Off
ES 1/8 JVG-SJC UCSB-8200 M3 12 Cores 128 GB RAM 5.6Tb FC11821750X	LG-DEM0-8 3.12TB.3.12GB P/W Ready	Power Off Standalone OK Fault Cleared Power Off Locator LED Off
ES 1/1 JVG-SJC UCSB-8200 M3 12 Cores 128 GB RAM 5.6Tb FC11821750X	LG-DEM0-1 3.12TB.3.12GB P/W Ready	Power Off Standalone OK Fault Cleared Power Off Locator LED Off
ES 1/2 JVG-SJC UCSB-8200 M3 12 Cores 128 GB RAM 5.6Tb FC11821750X	LG-DEM0-2 3.12TB.3.12GB P/W Ready	Power Off Standalone OK Fault Cleared Power Off Locator LED Off
ES 1/4 UCSB-8200 M3	LG-DEM0-4	Power Off Locator LED Off

Multi-Site



Hyperconverged

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# What is AppDynamics

Automated, cross-stack intelligence for continuous business and application performance monitoring



# Application loyalty is the new brand loyalty



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How does your app stack up against the new user expectation bar?





# AppDynamics Provides Business and Performance Intelligence in Real Time

Why it's happening.



What is happening with the business.

Validation of business health.

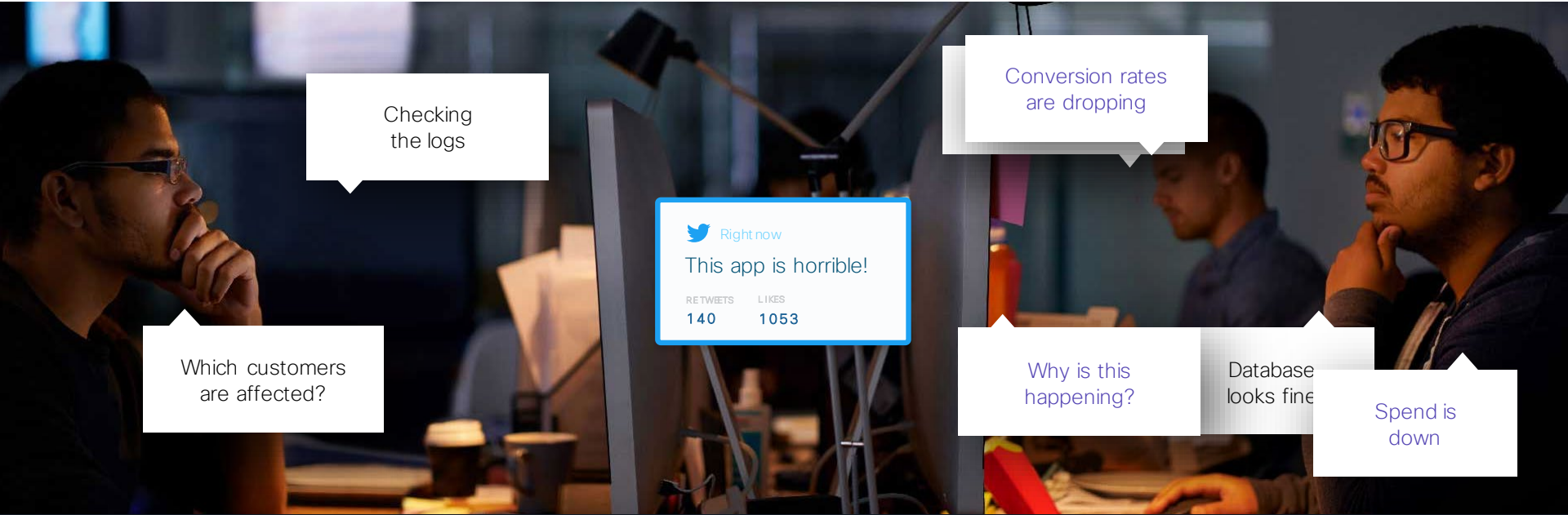
Real-time Business Health

Correlated Business and Performance KPIs

IT & Business Alignment




# Siloed Teams Solve Siloed Problems



Checking the logs

Conversion rates are dropping

Which customers are affected?

 Right now  
This app is horrible!  
RETWEETS 140 LIKES 1053

Why is this happening?

Database looks fine

Spend is down

The War Room



# Case Studies



## Carhartt Solves Business and IT Challenges with Business iQ

### CHALLENGES:

- As Carhartt, a clothing brand of durable, high-quality apparel, expanded its global footprint, system glitches began to affect the customer experience
- Due to slowed service times in the online ordering process, customers were contacting customer service with increased frequency

### SOLUTION:

- Implemented AppDynamics to gain end-to-end visibility and regain control of the customer experience
- Observed issues such as dropped orders in real time and worked to fix them before they negatively impacted the customer
- Achieved a single source of truth for both the IT and business functions of the company

### RESULTS:

- Improved application performance
- Improved customer experience
- Better use of IT resources

REGION: United States (AMER)



“One of the key advantages that we have seen from Business iQ is that it provides a vehicle for both business colleagues and IT colleagues to collaborate together around a single source of truth.”

John Hill  
Chief Information Officer





# Demo

Want a **live, personal demo** of what you saw here today?

*Click the link in the chat window!*



Q&A



Before we go...

Click *the link* in the chat for a  
free trial of AppDynamics!



Some other links to check out...

Find them in the chat window!

- [HyperFlex Home Page](#)
- [HyperFlex At-A-Glance](#)
- [HyperFlex Video](#)
- [ESG Lab Validation Case Study](#)
- [Personal Demo Request Form](#)

Click [here](#) to view all Data Center resources for partners

# We Appreciate Your Feedback!

Please take a moment to let us know if this session met your needs and expectations.

The confidential evaluation survey will open once the event window is closed.

