



Cisco Intersight Workload Optimizer

Visibility, Insights & Actions

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1

How important is it to continuously assure the performance of your applications?

2

How do you do this today?

3

When do you use these tools?

4

Do you sometimes buy a little extra? Pad your infrastructure, double the size of your cloud instances?

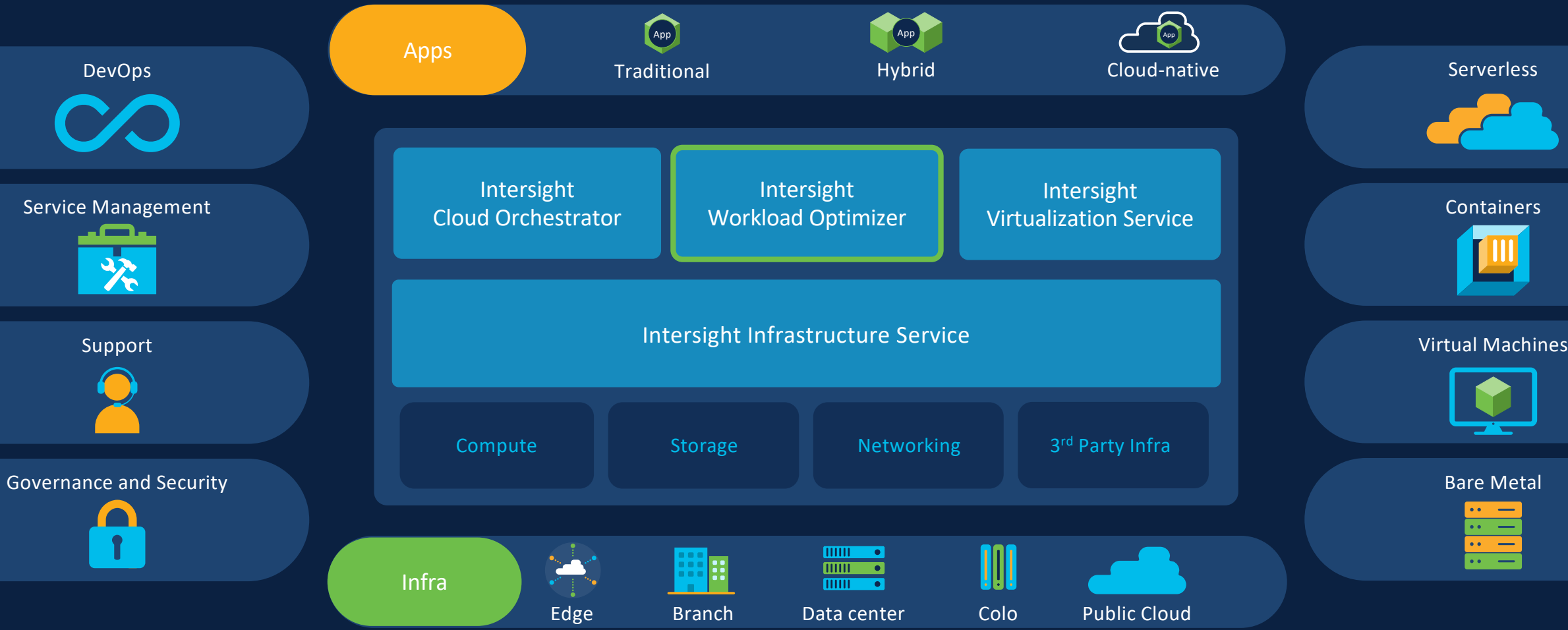


What if software could watch everything in real-time and make decisions and take actions to assure that all applications get the resources they need when they need them?

THEN YOU COULD:

- 1** Never have slow applications because of resources (\$\$\$\$)
- 2** Stop wasting time having people fix what shouldn't have been broken (\$\$\$\$)
- 3** Stop overspending on resources as an insurance policy (\$\$\$\$)

Intersight - full stack automation & observability

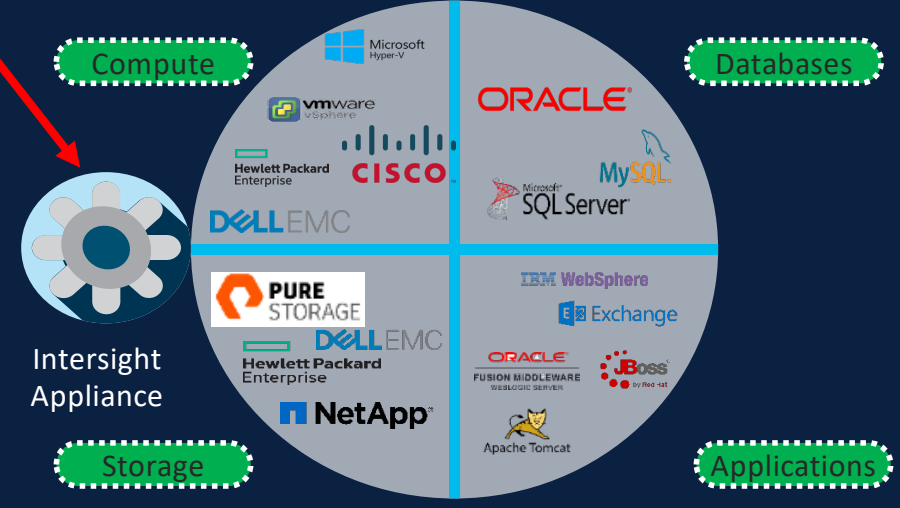
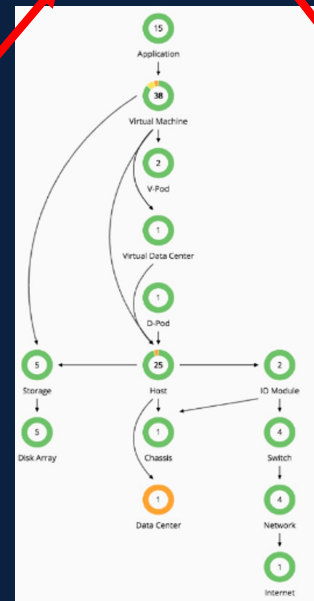
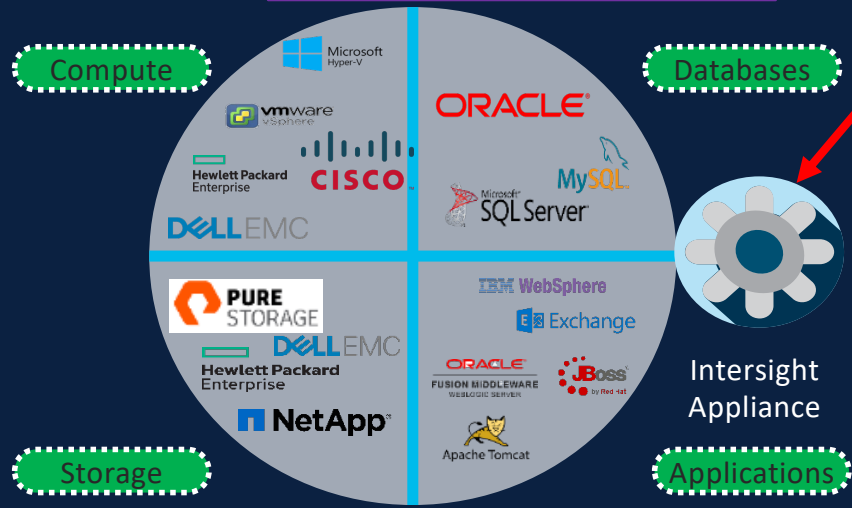


Intelligent visualization, optimization, and orchestration for applications and infrastructure across public cloud and on-premises environments...

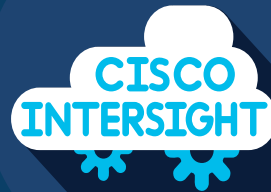
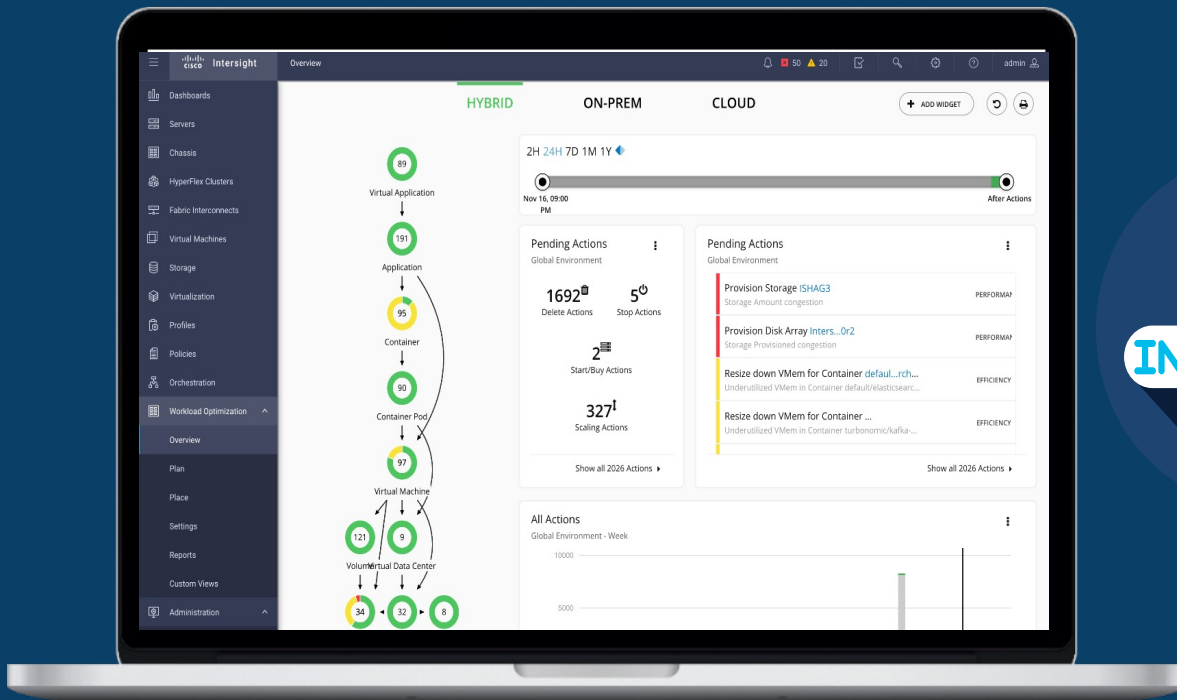


DataCenter "A"

DataCenter "B"



Cisco Intersight Workload Optimizer



IT Operations' Prime Directive: deliver performant applications at the lowest possible cost

It's an incredibly difficult job, beyond human scale, and our customers need help

IWO is a SaaS-delivered, real-time decision engine for public and private cloud environments

Desired Outcome:

IWO assures workload performance while simultaneously optimizing the underlying infrastructure at the lowest cost possible.....

Workload Optimizer: Driving Toward the Desired State



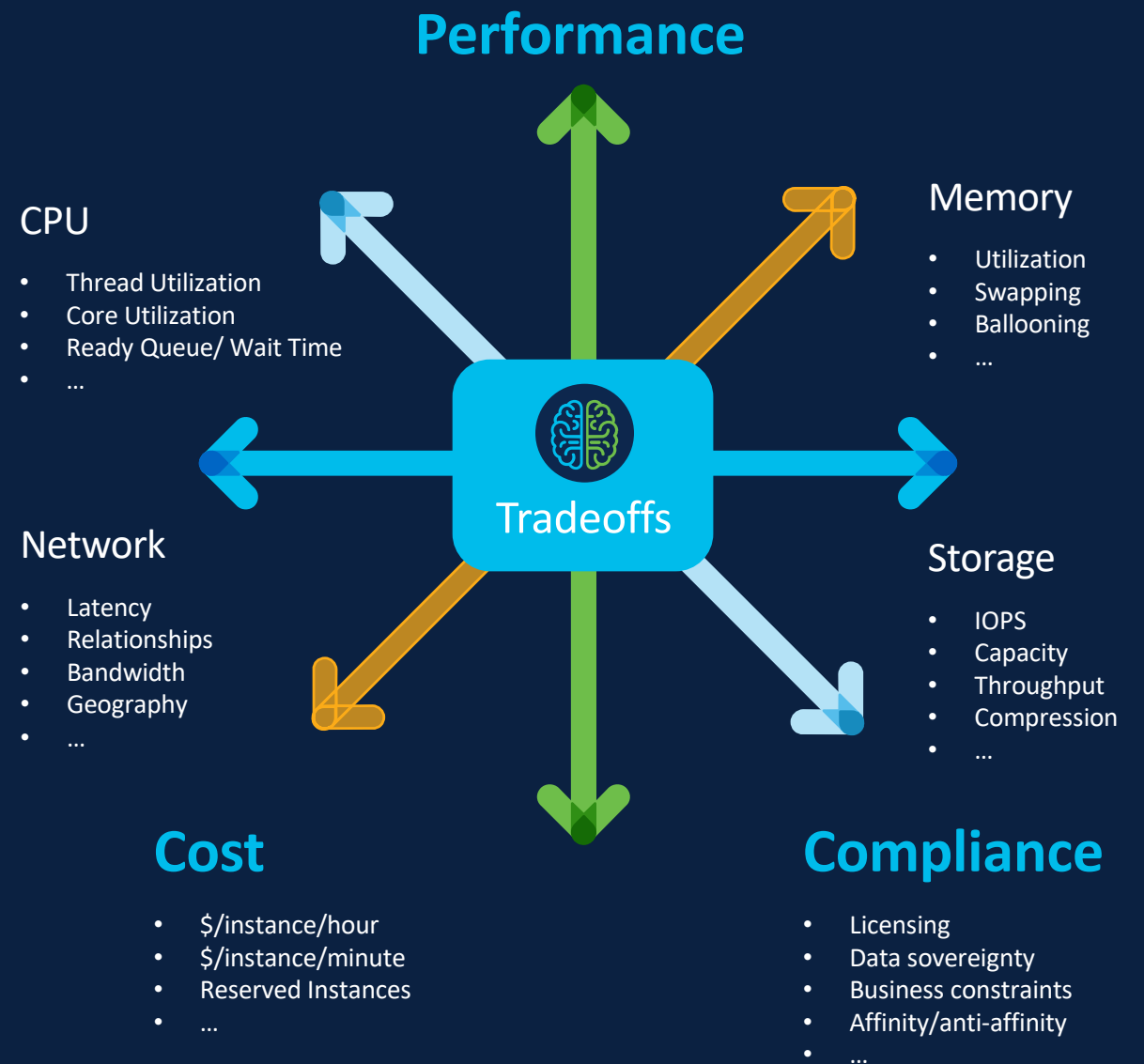
Always solving for, simultaneously:

1. Better Performance
2. Increased Compliance
3. Lower Costs

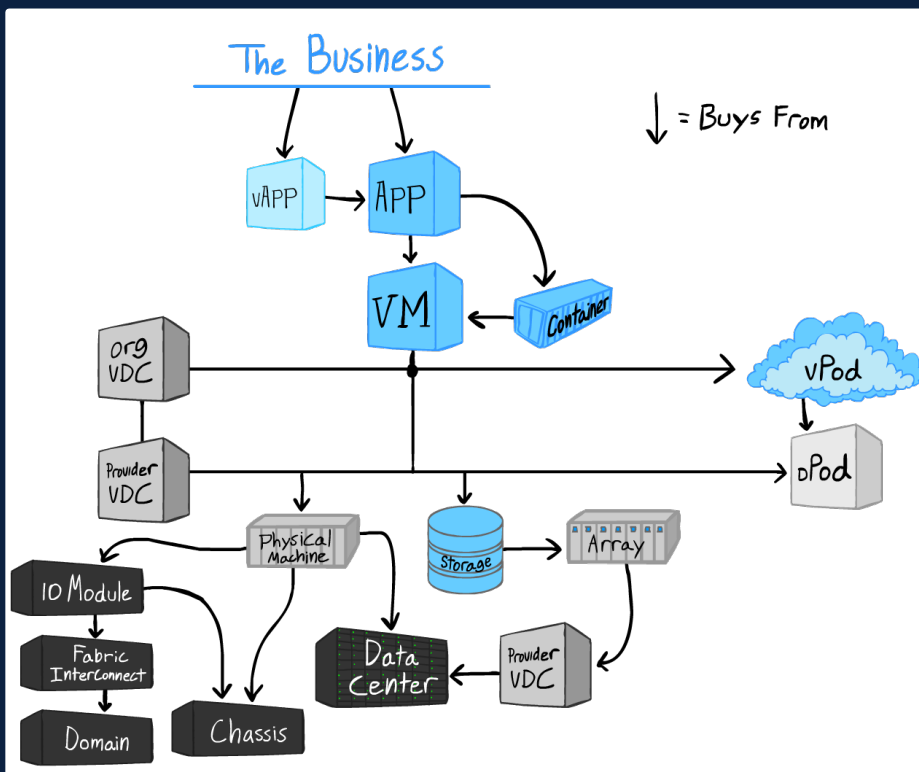
Workload Optimizer: Dynamic Resource Adjustment

- Navigate multiple tradeoffs
- Operate in real time
- Self-managing

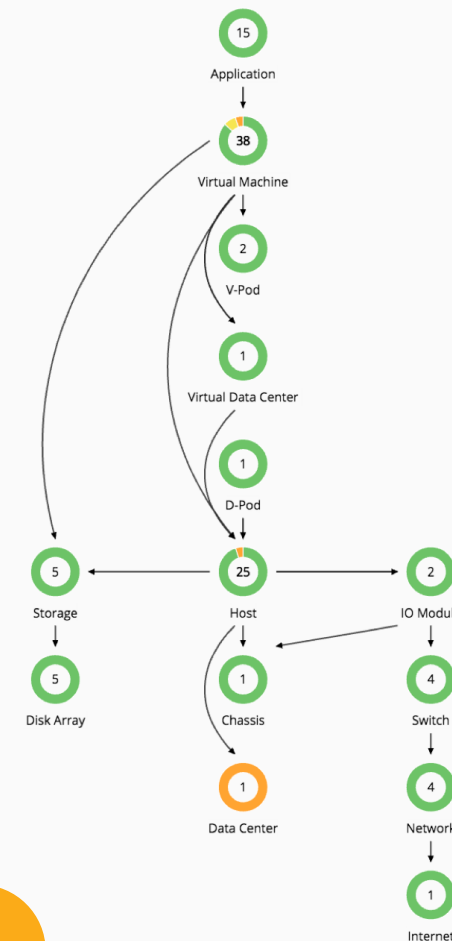
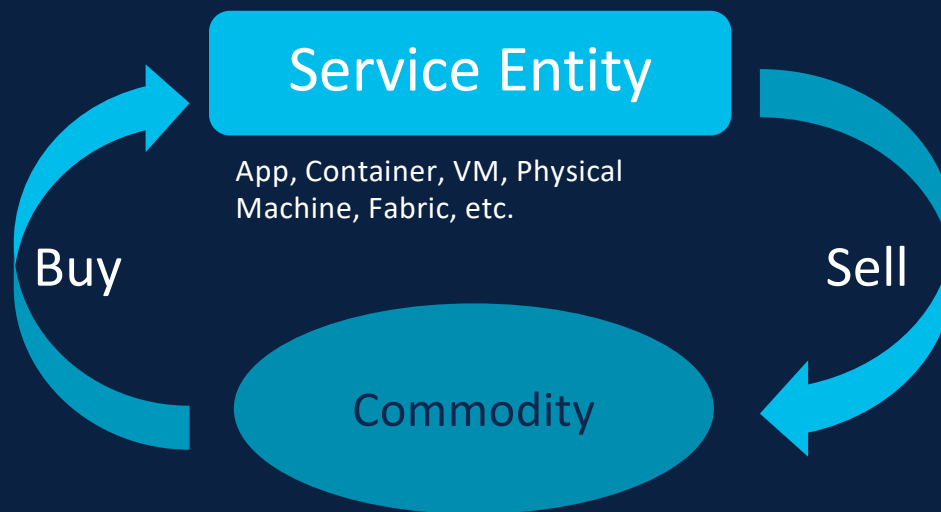
- 
- Initial Workload Placement
 - Increase Resources
 - Decrease Resources
 - Move Workload
 - Retire Resources



Abstraction: The Supply Chain Market



2 Services entities shop for the best overall price for every commodity (resource) they need to perform.



3 Within 1 hr. you see these relationships in the WOM UI.

1 Everything in the data center is abstracted into a supply chain market.

IWO Demo

IWO -- By the Numbers



16,000+

Workloads targeted across vCenter & AWS



16,203

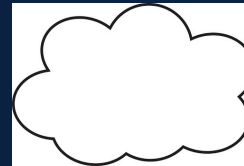
Remaining Decisions to Optimize Environment, reduce risks related to congestion, swapping and ready queue, and reclaim:

- 103 GB of Mem
- 5.61 TB of vMem capacity
- 780 vCPU cores
- 5 TB of wasted storage



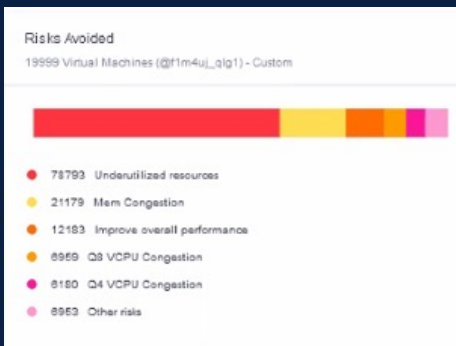
All clusters

Under Automated Placement



4,989

Decisions in AWS to improve performance and lower spend



132,247+

Risks Avoided via Placement Automation

- 21,179 Memory congestion risks
- 13,139 CPU congestion risks
- 12,183 Improve overall performance
- 78,793 Underutilized resources



\$5,899,224

Potential annual savings from taking all performance/efficiency decisions in AWS

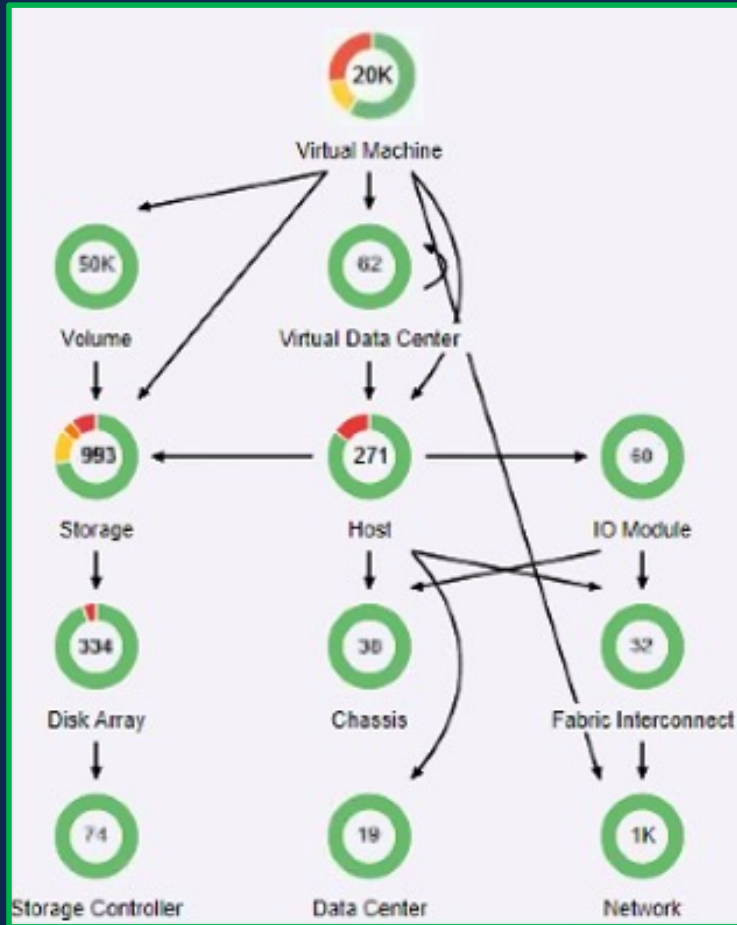


\$747,876

Safe annual reduction in AWS spend
\$62,323 monthly reduction

IWO Automation Results

IWO Customer with IWO Automation



- IWOs scaling & placement decisions allowed IWO Customer to **avoid 274k performance risks that would impact customer experience** while reducing the time spent firefighting and troubleshooting.
- Real-time automation enabled IWO Customer to accurately grow and maximize the utilization of existing hardware. Additionally, automation improved operational efficiency while most importantly giving the best customer experience for mission critical products like OnBase.
- As a result of the automated actions, **hosts are healthier even with the growth IWO Customer has experienced.** IWO has helped IWO Customer to drive greater VM/host density.



- The team spends **less time manually caring for the environment** while **IWO continuously assures performance and greater utilization of resources on-prem.**



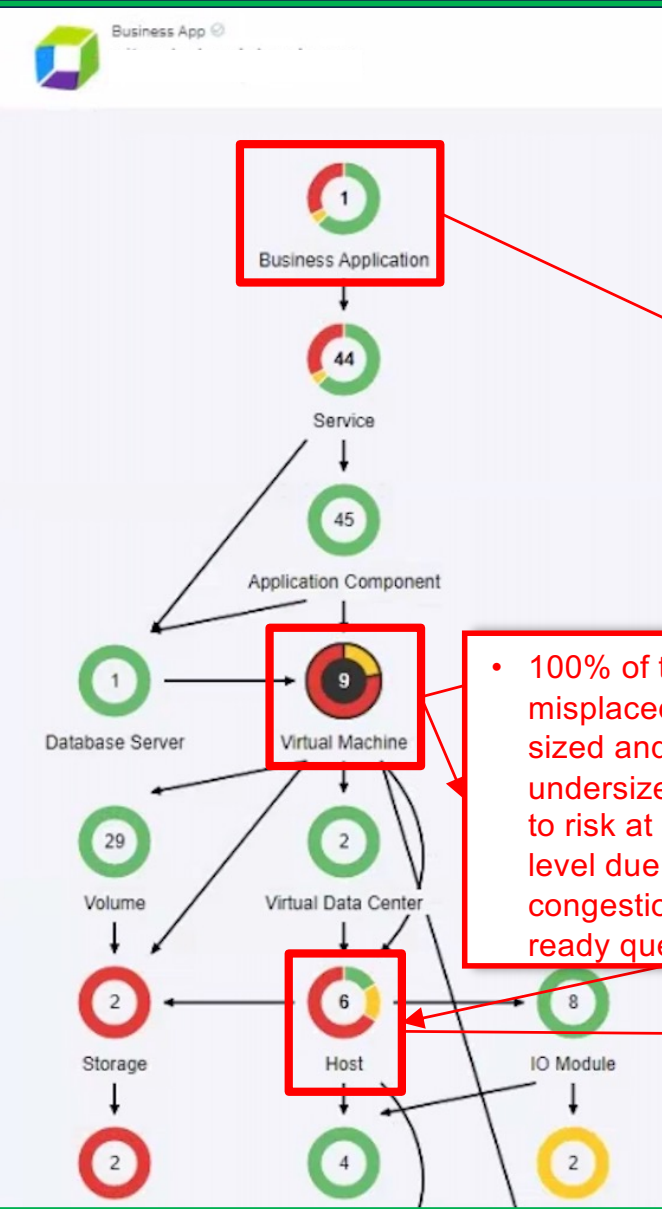
Action id	Recommend time	Acceptance time	Completion time	Action Category	Action Type	Target object uuid	Target VM Name	Action Details	Resource
144816318899919	2022-04-26 00:32:16	2022-04-26 14:02:23	2022-04-26 14:02:34	PERFORMANCE_ASSURANCE	RESIZE	74225762643600	lad-vm110a1b	Resize up VCPU for Virtual Machine lad-vm110a1b from 3 to ...	VCPU
144817029325589	2022-04-26 12:52:26	2022-04-26 14:02:23	2022-04-26 14:02:34	PERFORMANCE_ASSURANCE	RESIZE	74225762742096	lad-vm110a1a	Resize up VCPU for Virtual Machine lad-vm110a1a from 3 to ...	VCPU
144887962750708	2022-06-16 20:21:53	2022-06-16 20:21:57	2022-06-16 20:22:13	PERFORMANCE_ASSURANCE	RESIZE	74258746745872	pit-f3-01cnv01	Resize up VCPU for Virtual Machine pit-f3-01cnv01 from 2 to...	VCPU
144887962750710	2022-06-16 20:21:53	2022-06-16 20:21:57	2022-06-16 20:22:13	PERFORMANCE_ASSURANCE	RESIZE	74258746747008	pit-f3-01cnv02	Resize up VCPU for Virtual Machine pit-f3-01cnv02 from 2 to...	VCPU
144887962750712	2022-06-16 20:21:53	2022-06-16 20:21:57	2022-06-16 20:22:13	PERFORMANCE_ASSURANCE	RESIZE	74258746748032	pit-f3-01cnv03	Resize up VCPU for Virtual Machine pit-f3-01cnv03 from 2 to...	VCPU
144894317507997	2022-06-21 10:41:21	2022-06-21 10:41:25	2022-06-21 10:41:31	PERFORMANCE_ASSURANCE	RESIZE	74258746745872	pit-f3-01cnv01	Resize up VCPU for Virtual Machine pit-f3-01cnv01 from 3 to...	VCPU
144894317507999	2022-06-21 10:41:21	2022-06-21 10:41:25	2022-06-21 10:41:33	PERFORMANCE_ASSURANCE	RESIZE	74258746747008	pit-f3-01cnv02	Resize up VCPU for Virtual Machine pit-f3-01cnv02 from 3 to...	VCPU

High Performance Risk Customer-

- The customer is experiencing **nearly 25 secs response time** as a result of the re-emerging readyqueue, memory, and cpu congestion



- IWO is recommending placement and scaling actions to eliminate risks related to VCPU and Memory congestion, ready queue, and overprovisioning



• 100% of the VMs are misplaced, over-sized and undersized leading to risk at the host level due to congestion and ready queue.

<input type="checkbox"/>	Resize up VMem for Virtual Machine pit-vm315a1b from 40 GB to 43 GB VMem Congestion in Virtual Machine pit-vm315a1b (Auto Scaling Groups: cg_vmw_obp_315_app_row_1)	Performance	>
<input type="checkbox"/>	Resize up VMem for Virtual Machine pit-vm315a1a from 40 GB to 43 GB VMem Congestion in Virtual Machine pit-vm315a1a (Auto Scaling Groups: cg_vmw_obp_315_app_row_1)	Performance	>
<input type="checkbox"/>	Resize up VMem for Virtual Machine pit-vm315a1d from 4 GB to 43 GB VMem Congestion in Virtual Machine pit-vm315a1d (Auto Scaling Groups: cg_vmw_obp_315_app_row_1)	Performance	>

<input type="checkbox"/>	Move Virtual Machine pit-vm609s9 from pit-esx-prt-09 olympus.gala.kosmos to pit-esx-prt-07 olympus.gala.kosmos Q2 VCPU Congestion	Performance	>
<input type="checkbox"/>	Move Virtual Machine pit-vm475a7 from pit-esx-prt-09 olympus.gala.kosmos to pit-esx-prt-15 olympus.gala.kosmos Q2 VCPU Congestion	Performance	>
<input type="checkbox"/>	Move Virtual Machine pit-vm609s13 from pit-esx-prt-09 olympus.gala.kosmos to pit-esx-prt-21 olympus.gala.kosmos Q2 VCPU Congestion	Performance	>
<input type="checkbox"/>	Move Virtual Machine pit-ob720s4 from pit-esx-prt-09 olympus.gala.kosmos to pit-esx-prt-14 olympus.gala.kosmos Q2 VCPU Congestion	Performance	>
<input type="checkbox"/>	Move Virtual Machine pit-vm338w2a from pit-esx-prt-09 olympus.gala.kosmos to pit-esx-prt-21 olympus.gala.kosmos Q2 VCPU Congestion (Auto Scaling Groups: cg_vmw_obp_338_web_row_2)	Performance	>
<input type="checkbox"/>	Move Virtual Machine pit-c1021ag1 from pit-esx-prt-09 olympus.gala.kosmos to pit-esx-prt-15 olympus.gala.kosmos Q2 VCPU Congestion	Performance	>
<input type="checkbox"/>	Move Virtual Machine pit-vm376w3a from pit-esx-prt-09 olympus.gala.kosmos to pit-esx-prt-14 olympus.gala.kosmos Q2 VCPU Congestion (Auto Scaling Groups: cg_vmw_obp_376_web_row_3)	Performance	>
<input type="checkbox"/>	Move Virtual Machine pit-vm692s3 from pit-esx-prt-09 olympus.gala.kosmos to pit-esx-prt-15 olympus.gala.kosmos Q2 VCPU Congestion	Performance	>

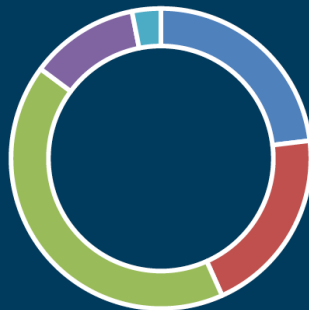
The Total Economic Impact™ Of Cisco Intersight Workload Optimizer

FORRESTER®

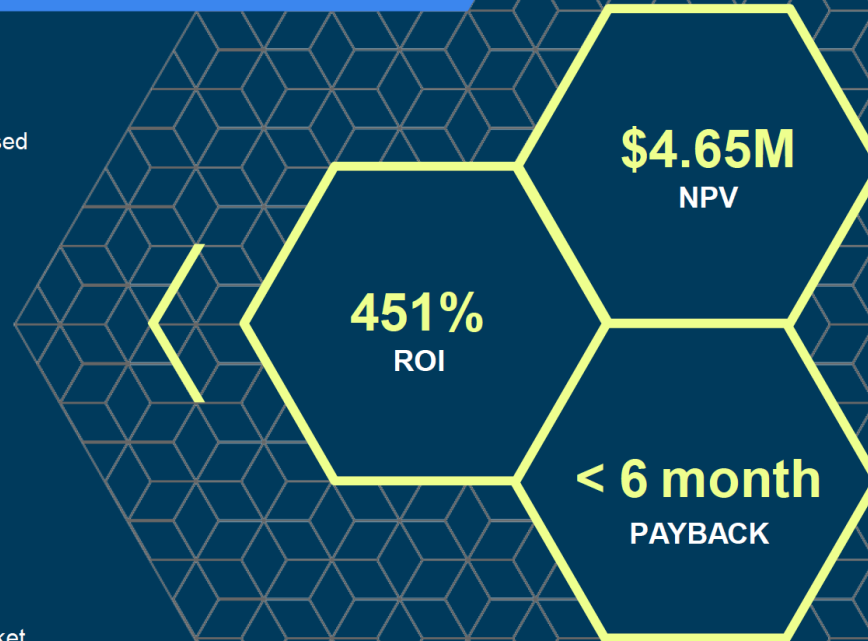
Through six customer interviews and data aggregation, Forrester concluded that Intersight Workload Optimizer has the following three-year financial impact.

SUMMARY OF BENEFITS

Three-year Benefits (\$6.9M)



- Revenue increase from increased application performance
\$2.9M
- Operational Efficiency Savings
\$1.4M
- Infrastructure (public cloud and on-premises) TCO savings
\$1.6M
- Avoid SW license fees
\$214.6K
- Revenue for faster time to market
\$811.7K



Intersight Workload Optimizer Business Outcomes

Improvements to revenue generating application performance

Increased staff productivity from automation and collaboration across infrastructure and application teams

Eliminate infrastructure and cloud waste

Forrester Total Economic Impact (TEI) Report of Cisco Intersight Workload Optimizer (IWO)

Application performance and availability increases by 20% | 40% improvement in time to market | IT productivity increase by 35% | 30% to 40% savings for public cloud resources | 40% to 50% savings for on-premises infrastructure | Initial payback < 6 months

What can you do with Intersight Workload Optimizer?



Safely increase infrastructure utilization

Eliminate infrastructure as the cause of application performance degradation, without overprovisioning



Accelerate consolidation and refresh projects

Accelerate and de-risk IT transformation projects across heterogeneous estates



Improve IT staff productivity

Simplify complex tasks, automate decision-making, and gain time to innovate



Accelerate and de-risk multicloud projects

Safely and efficiently migrate workloads between premises and the public cloud to reduce cost and increase efficiency

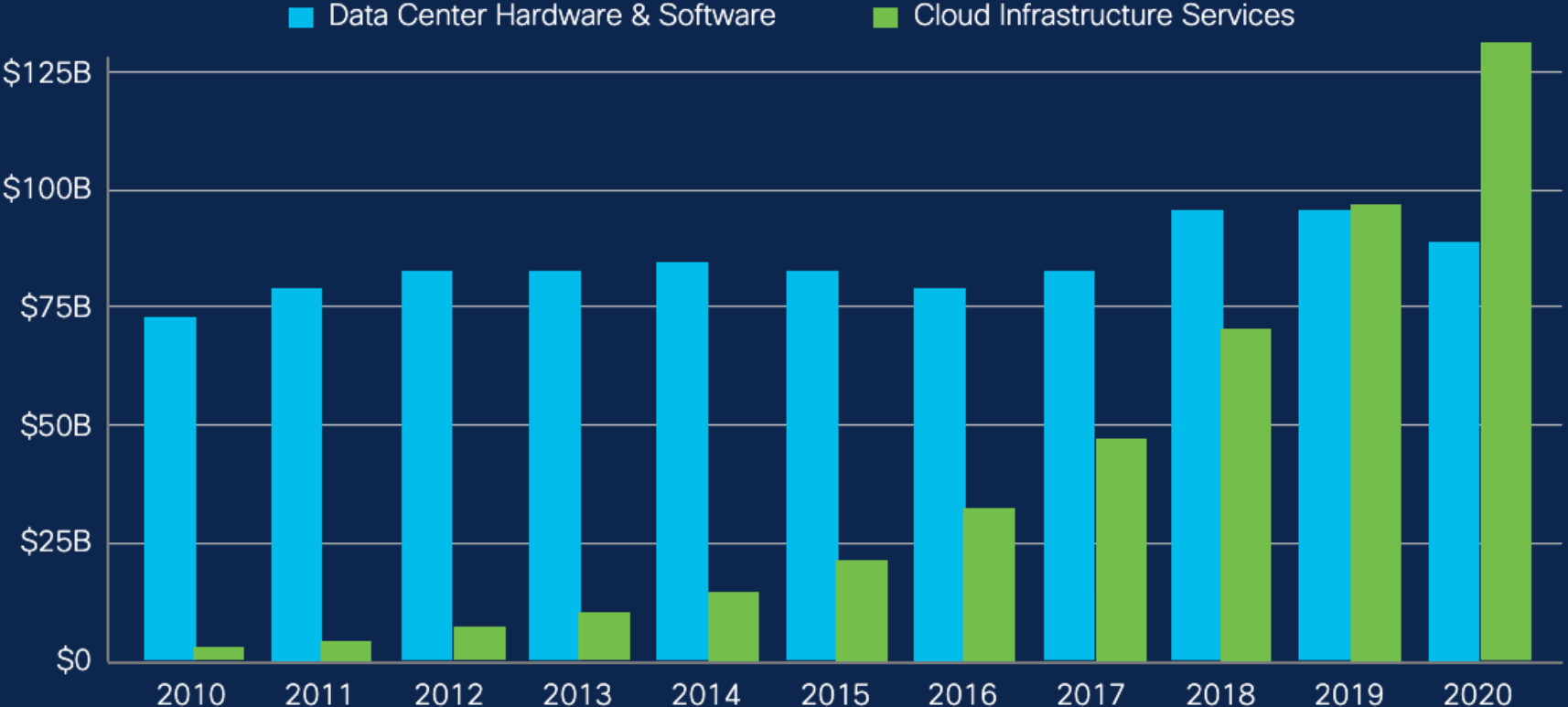


Optimize public cloud spend

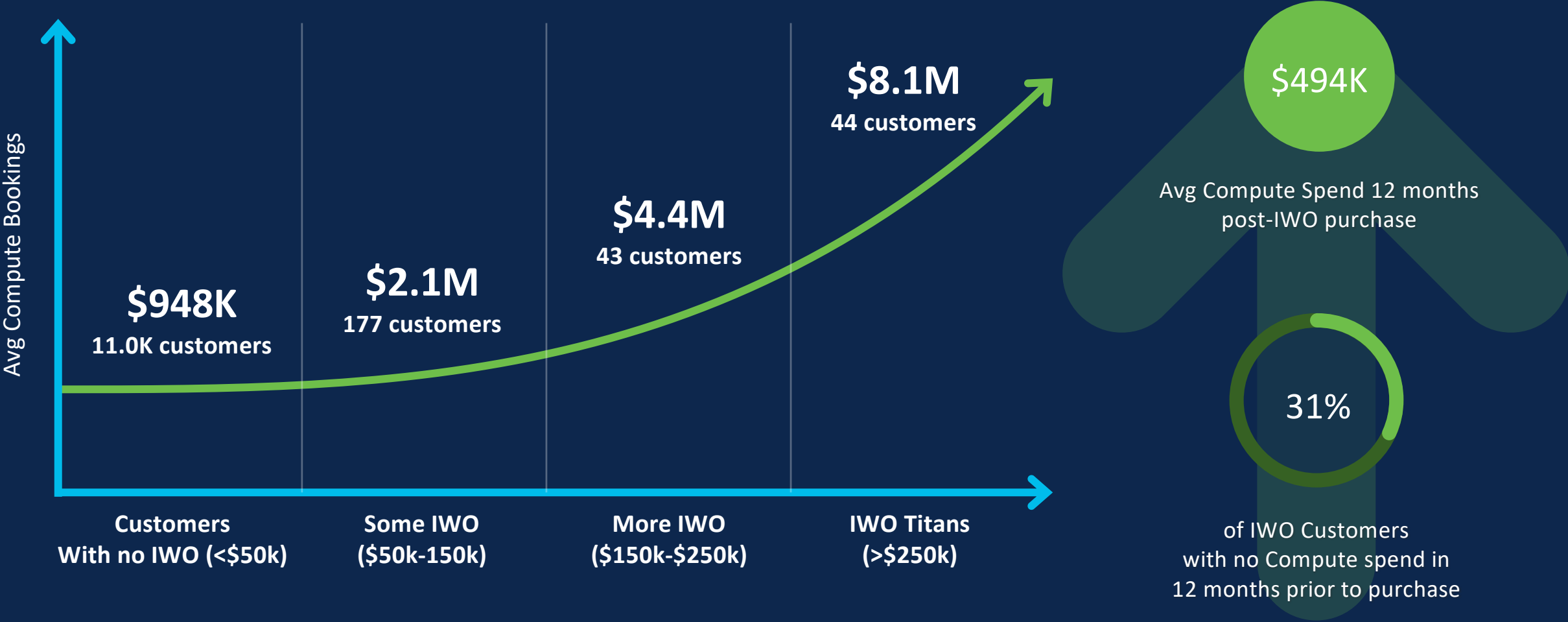
Consume and pay only for what the business really needs, while assuring application performance

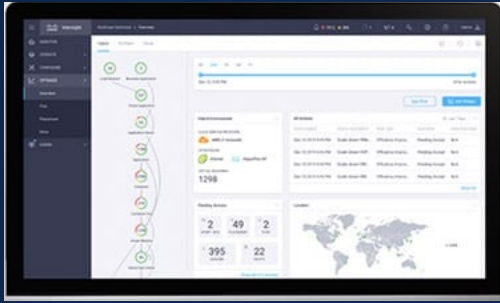
Intersight– Opening New Opportunities for you

Worldwide Enterprise Spending on Cloud and Data Centers



IWO Attach Brings Increases share of wallet





Get Started with IWO Now

Sell and book recurring software revenue now, there is no dependency on HW

- Unified platform unites teams and automatically manages applications, containers, VMs, storage, network, hyperconverged, cloud and more!
- Software automatically makes application resource decisions to continuously assure performance, preventing resource contention
- Lower costs by matching real-time application resource demands to infrastructure supply on-premises and/or in the cloud



Application-Driven World

- ✓ Address the #1 problem of assuring performance of mission critical applications
- ✓ Sell IWO with AppDynamics as part of the FSO story!



Cloud Conversations

- ✓ Sell to AWS and Azure customers
- ✓ IWO will ensure that applications are correctly resourced, eliminating cloud waste at optimal costs

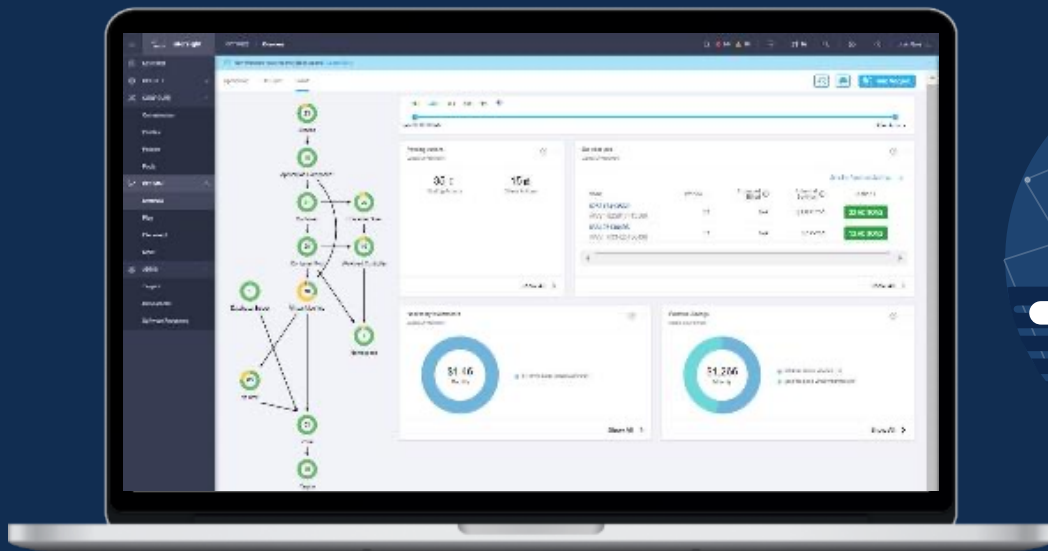


Bring Value to your Customer

- ✓ Help your customers find the best place to run their workloads
- ✓ Give them the confidence to move to the cloud and be successful with out overspending.



Cisco Intersight Workload Optimizer



Complete visibility from infra to apps
Mapping of complex interdependencies

Real-time, AI-powered analytics
Continuously balancing performance and cost

Actionable recommendations
Automated, real-time decisions

Simplify application
resource management

Reduce OPEX and
preserve capital

Adapt to change and
reduce risk

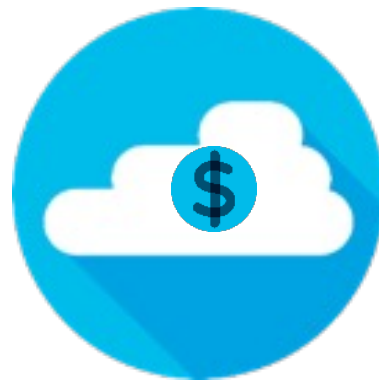
When workloads get exactly what they need when they need it ...



Applications
continuously
perform



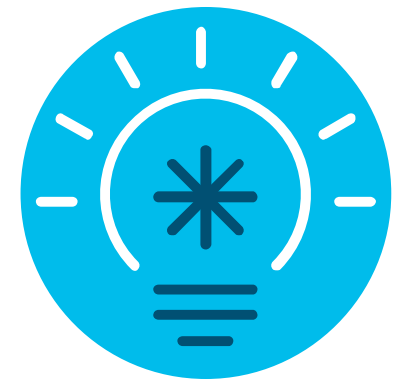
Resources are
efficiently
utilized



Cloud spend
is on budget



Policies are
followed



IT
can
innovate