

AV | Networks®

# Avi Networks

Cisco Innovation Day May 2019

[patrick.schmidt@avinetworks.com](mailto:patrick.schmidt@avinetworks.com)



# Deutsche Bank Adopts “Everything-as-a-Service” Strategy for Applications with Avi Networks and Red Hat

## BACKGROUND

Deutsche Bank provides commercial and investment banking, retail banking, transaction banking and asset and wealth management products and services to corporations, governments, institutional investors, small and medium-sized businesses, and private individuals. Deutsche Bank is Germany's leading bank, with a strong position in Europe and a significant presence in the Americas and Asia Pacific. Paul McDonald (Vice President of Community Management) and Adam Spencer (Product Owner for Fabric) both work in Engineering Services and are directly responsible for Deutsche Bank's digital transformation efforts and Platform as a Service (PaaS) modernization strategy.

## Deutsche Bank



### INDUSTRY

Finance

### ENVIRONMENT

Red Hat OpenShift

### PROBLEM

- Traditional load balancing solutions unable to support Deutsche Bank's rapid increase in scale.
- Deutsche Bank needed modern application networking that would offer integration with the cloud, low static infrastructure costs, high availability

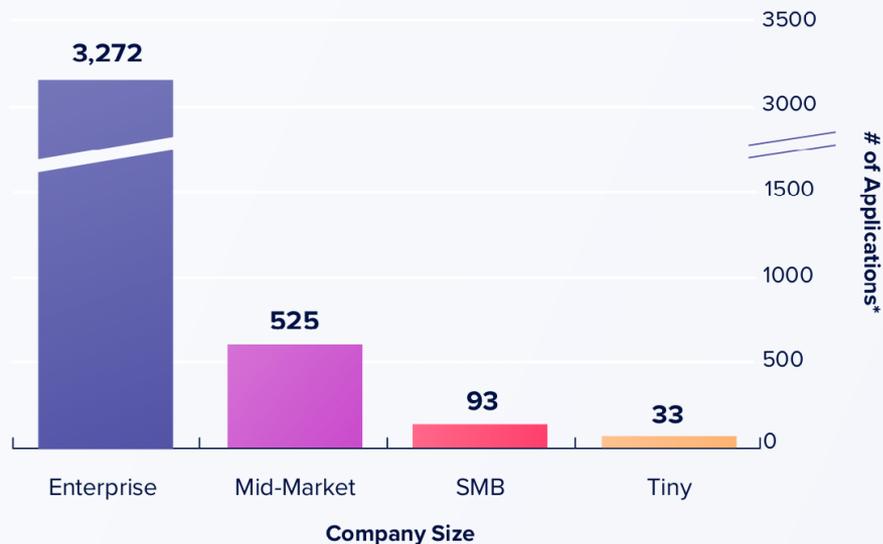
“Projects that used to take anywhere from 6 to 12 months can now take 3 weeks from inception to production.”

**ADAM SPENCER, PRODUCT OWNER FOR FABRIC**

# The Explosion of Software and Cloud Growth goes Hand in Hand

## How Many Applications Do Businesses Use?

Average Number of Applications Per Company



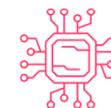
\*Cloud and on-premises applications.  
Source: 2019 Intricate Cloud Market Report



**Rising Customer Expectations**

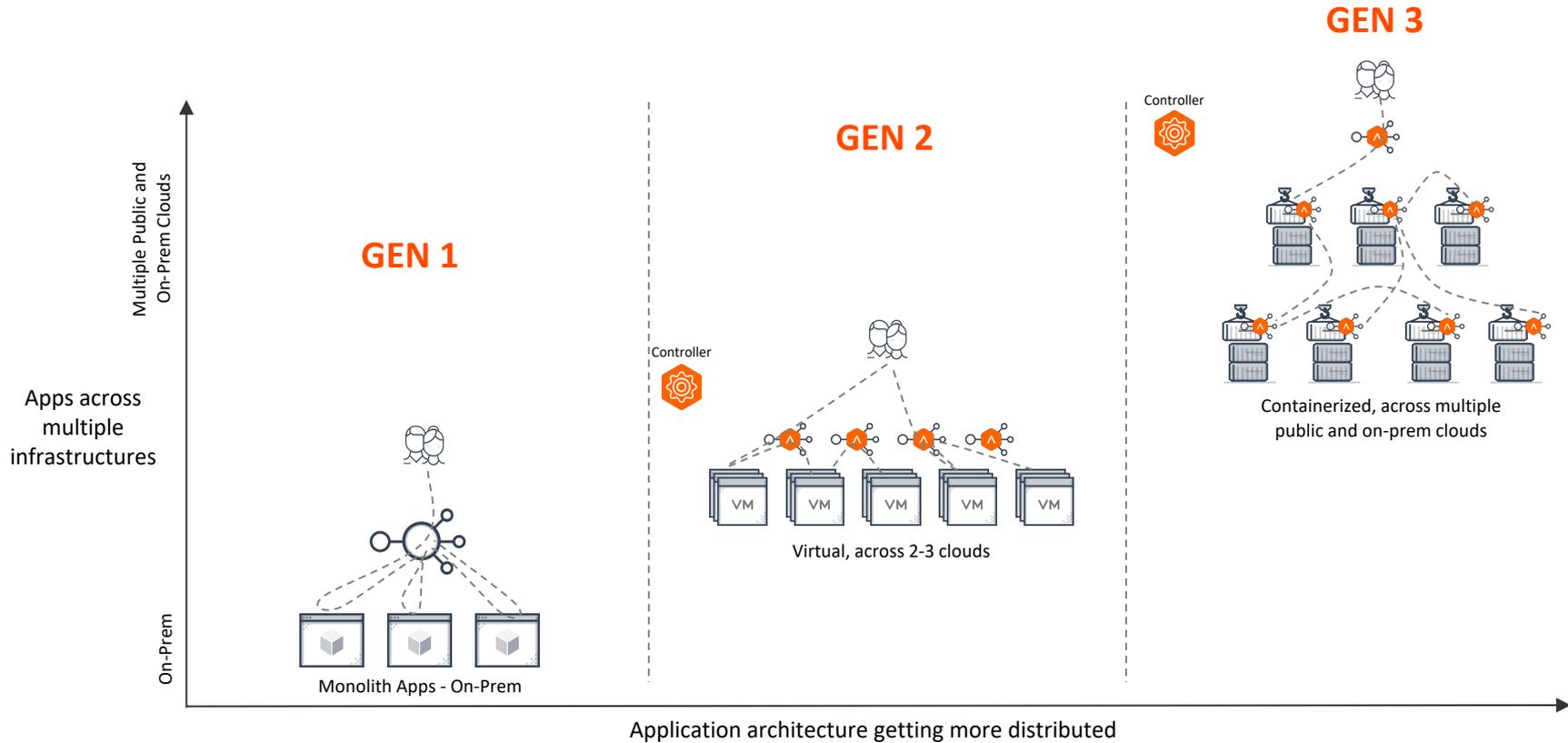


**Globalization**



**Niche Solutions**

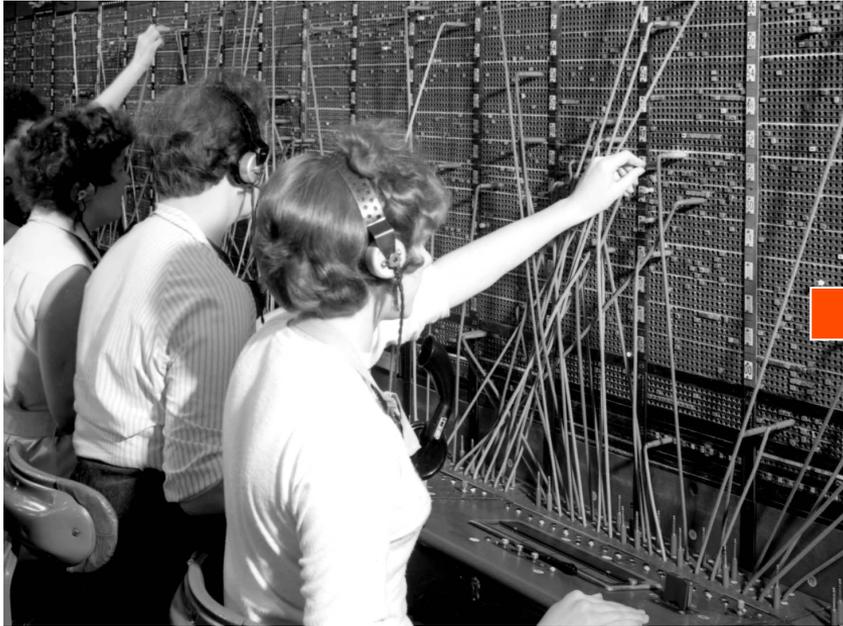
# Application Evolution



# Application Services Need a Generational Change

From ticket based provisioning to self-service

## Manual Configuration



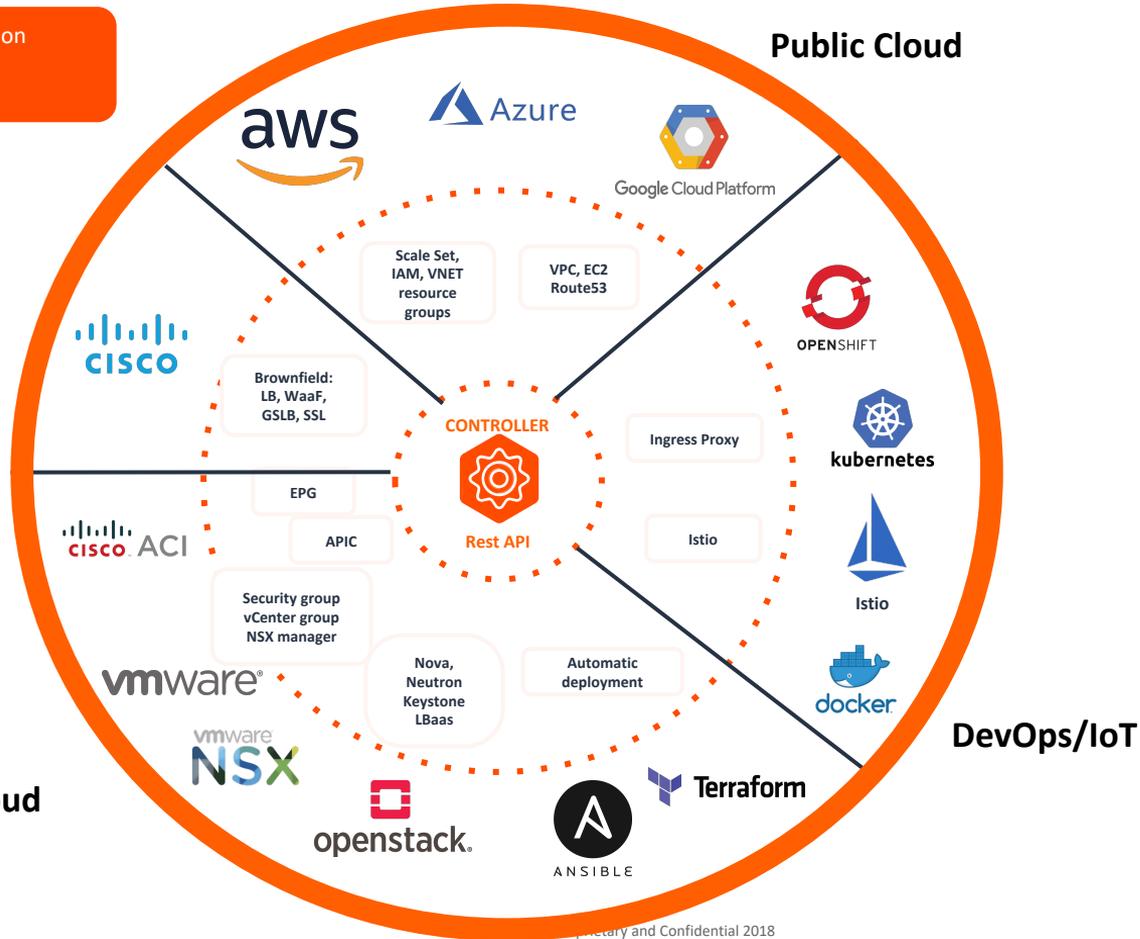
## One-Click Automation



# Consistent Application Services - All Apps, & Any Cloud

- Built-in ecosystem integration
- Native cloud connectors
- SaaS or customer-managed

## Mode 1, LB Replacement



Software Load Balancers



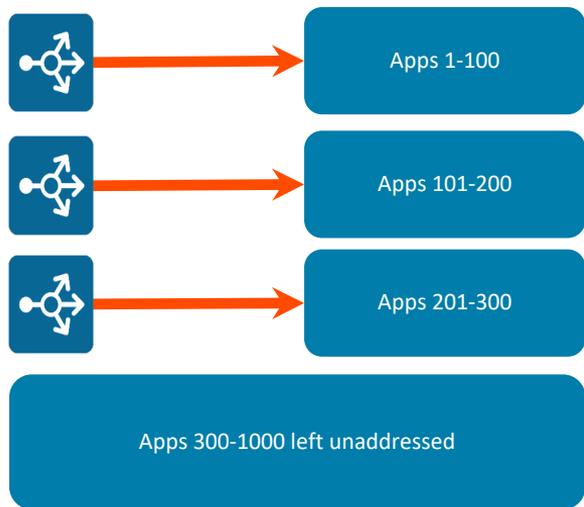
Intelligent Web Application Firewall



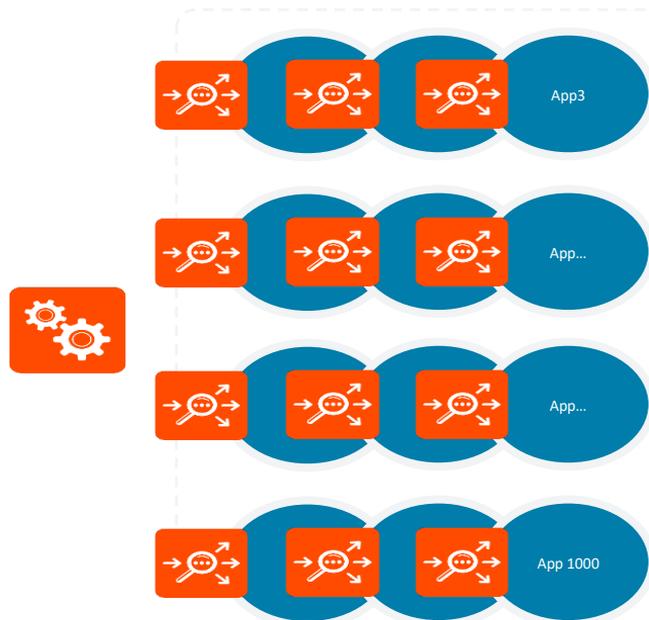
Universal Service Mesh

# Enabling a “Per-Application Services” Architectural Transition

**Existing  
Shared LB**



**With Avi  
Per-Tenant/App LBs and Self-Service**



# Adobe Accelerates Cloud Initiatives with Microsoft Azure

## Delivering applications reliably and securely both on-premises and in the cloud

-  Migrate the Adobe Experience Cloud to Azure with enterprise-grade support
-  Deliver thousands of SSL transactions per second, and elastic scale of load balancers and app servers based on real-time traffic
-  Improve operations with app insights and central management of all load balancers

“

**By reliably and securely delivering our applications, Avi Networks has become a key partner for our adoption of Azure.**

”

Brandon Pulsipher  
Vice President, Product Technical Operations



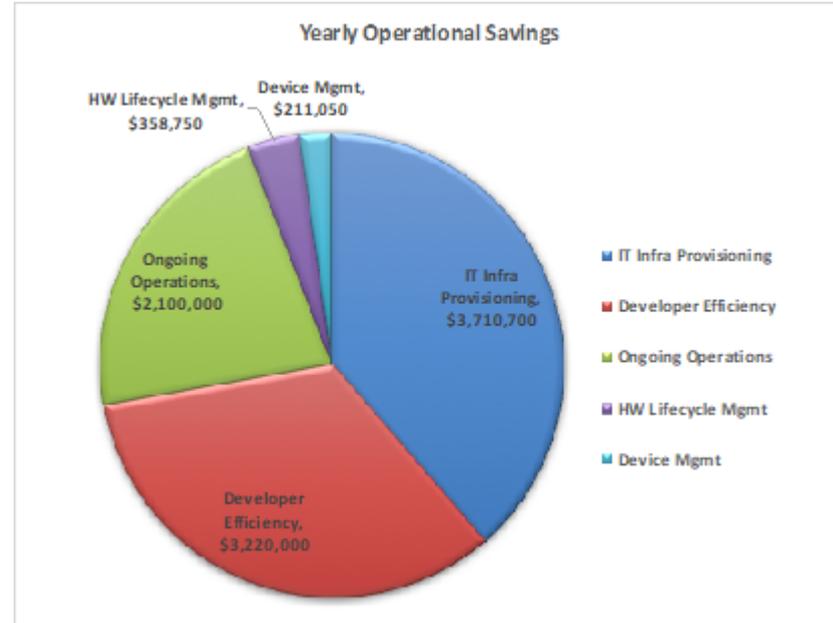
# Massive Operational Benefits and Savings – Top 3 Global Bank

## SUMMARY:

TOTAL OPERATIONAL SAVINGS	Man-Days	Per Day \$ Value	\$ Saved
TOTAL OPERATIONS DAYS SAVED FOR IT INFRA	18,230	\$350	\$6,380,500
TOTAL DEVELOPER TIME (IN DAYS) SAVED	9,200	\$350	\$3,220,000
<b>TOTAL SAVINGS</b>			<b>\$9,600,500</b>

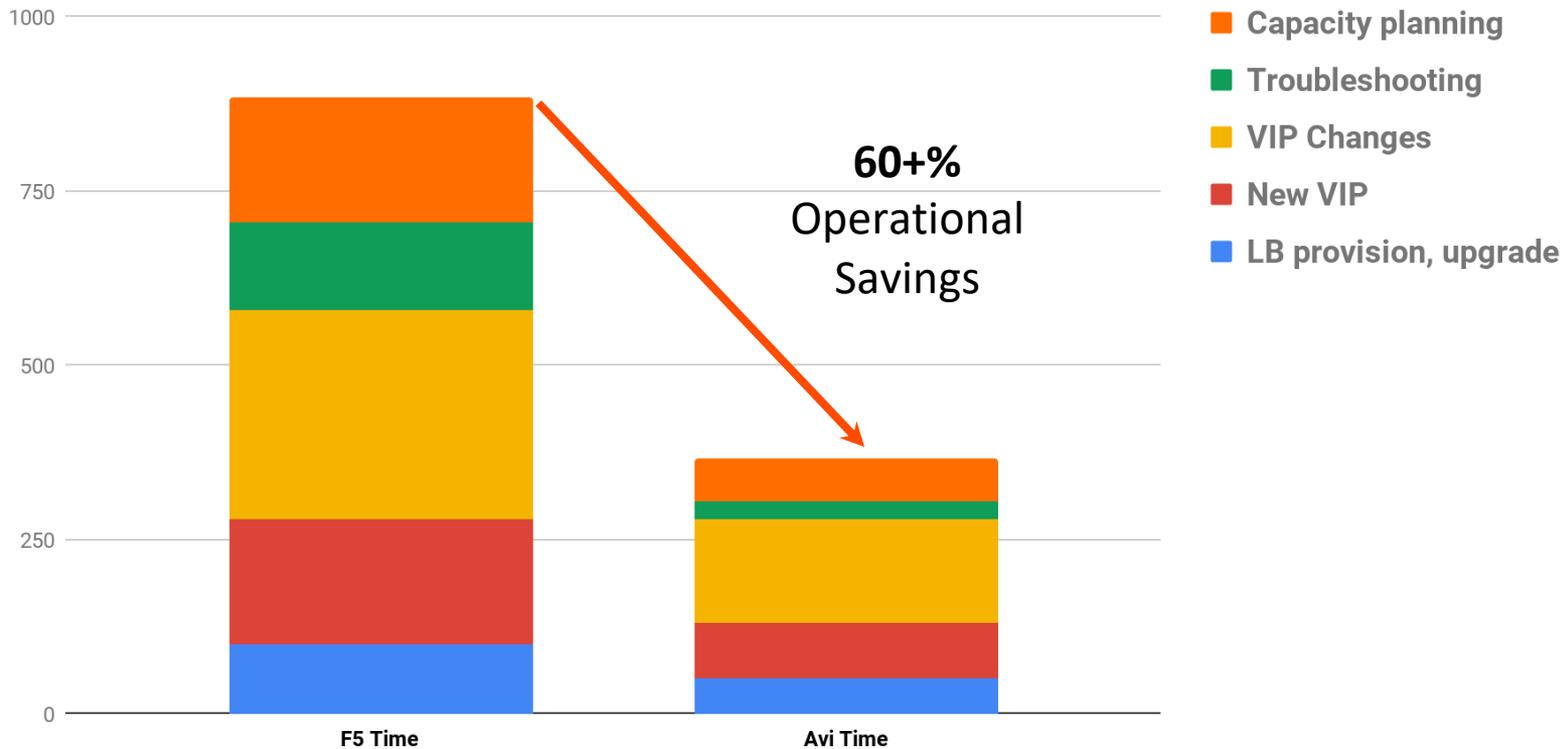
## DETAILS:

Environment Details (Data gathered with IT team):	LEGACY	AVI		
Total Number of LB Appliances	201	6		
VIPs (Apps) configured in an Year	5000	5000		
Value of 1 saved day in IT Infra team	\$350			
Value of 1 saved day for developers	\$350			
Number of changes per VIP, per Year	2			
Number of times Devs need monitoring info per VIP per Yr	0.20			
% of Apps that need to get into production	80%			
<b>Application and Device Provisioning time savings within IT:</b>				
	<b>AVI SAVINGS</b>	<b>Frequency (Yr)</b>	<b>Yearly Days</b>	
Provision a new load balancer (Days)	2	201	402	
Provision a new VIP (Days)	1	5000	5000	
Change an existing VIP (Days)	0.5	10000	5000	
Triage Time Savings w/ Integrated Monitoring (Days)	0.2	1000	200	
<b>Total Days of Provisioning Time (Days)</b>				<b>10602</b>
<b>Developer efficiency benefits due to faster provisioning within IT</b>				
	<b>AVI SAVINGS</b>	<b>Frequency (Yr)</b>	<b>Yearly Days</b>	
Developer time for VIP creation	1	5000	5000	
App deployment speed increase (central policy, CI/CD)	1	4000	4000	
Developer time for monitoring and triage	0.2	1000	200	
<b>Total Developer days free to focus on innovation</b>				<b>9200</b>
<b>Ongoing operations hours required by IT Ops teams</b>				
	<b>AVI SAVINGS</b>	<b>Frequency (Yr)</b>	<b>Yearly Days</b>	
Auto-Scaling and closed loop operation (Days)	0.5	4000	2000	
Time saved by DDoS & SSL Insights, for compliance etc (Days)	1	4000	4000	
<b>Total time saved in ongoing IT operations (Days)</b>				<b>6000</b>
<b>Hardware lifecycle management for HW LB Appliances</b>				
	<b>AVI SAVINGS</b>	<b>Frequency (Yr)</b>	<b>Yearly Days</b>	
Initial Hardware Rack-n-Stack (Days/Year)	4	201	804	
Hardware operations and maintenance (Days/Year)	1	201	201	
Hardware qualification (Days/Year)	20	1	20	
<b>Total Time for Hardware Lifecycle management (Days/Year)</b>				<b>1025</b>
<b>Device management for LB Appliances</b>				
	<b>AVI SAVINGS</b>	<b>Frequency (Yr)</b>	<b>Yearly Days</b>	
Days to upgrade/patch/maintain devices	3	201	603	



# Massive Operational Savings from F5 to Avi

F500 FinServ Customer - Estimate of number of days saved migrating from F5 to Avi



# Swisslos Delivers Superior Online Lottery Experience

## Deploying Avi Vantage for on-premises and WAF environments

-  Save 60% in total costs of operation
-  Immediately improve operations with Avi's central management console and one-click upgrades
-  Save 50% - 60% in troubleshooting time and effort.

“

**There is no valid reason to provision a web application on the internet without a WAF, especially since Swisslos needs to be compliant with industry regulations and certifications.**

”

Joris Vuffray

Head of Network & System Management

**SWISSLOS**

“Avi is completely agnostic and polyglot. It really doesn't matter which environment you want to run, you can run Avi on it.”

–Director and Product Owner of Fabric, Deutsche Bank

“By reliably and securely delivering our applications, Avi Networks has become a key partner for our adoption of Azure.”

–VP Product Operations Team, Adobe

“I don't have to worry about being woken up at night by the app teams that are using Avi.”

— Infra Architect Cloud Operations, Symantec

“Spent weeks trying to get F5 to parity with Avi and can’t! Also can’t get the support to guide us like we get from Avi.”

—Director, Bank of New York

“We have reduced app deployment time  
from 23 days to 30 seconds with Avi LB”

— SVP Networking, Bank of America