

Digital Revolution: Keep pace or perish !

Hansang Bae
SVP Business Development



**Business
Services**

riverbed[®]
The Digital Performance Company

Catalysts For The Digital Revolution



Cloud



Mobile



Analytics

Catalysts For The Digital Revolution

I want to be proactive

I'm afraid of losing control

I can't find root cause.

What are we doing to avoid this?



Cloud



Mobile



Analytics

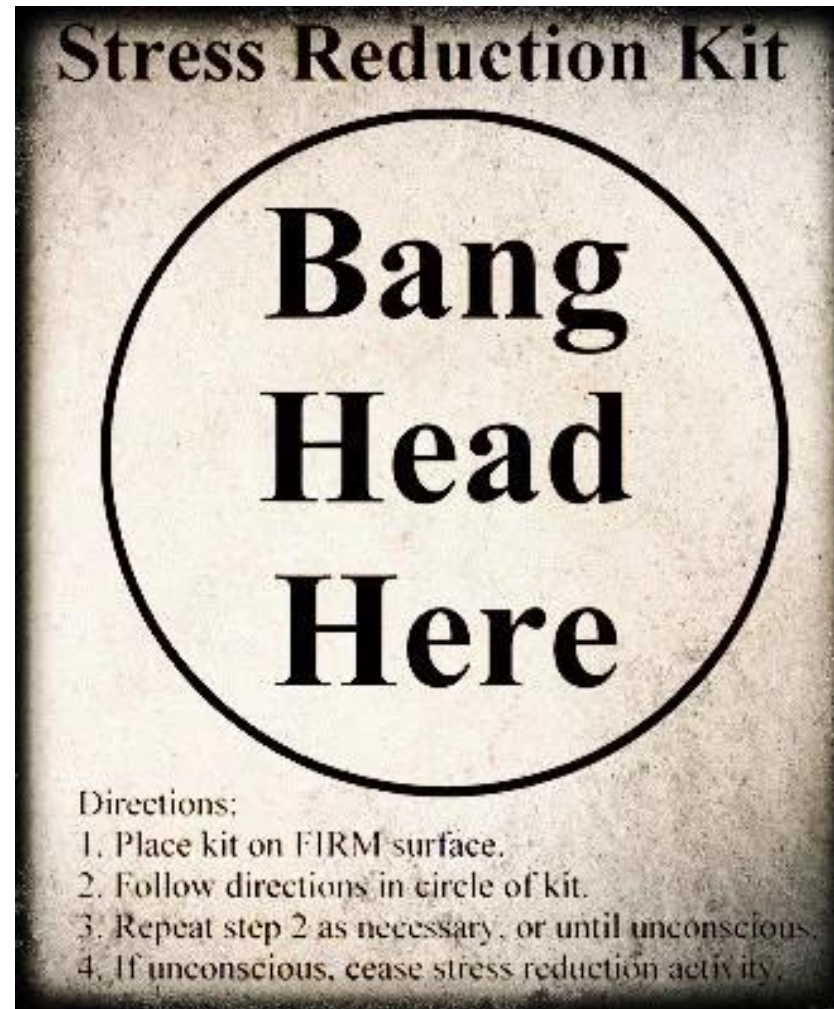
I'm too busy to be proactive

I have to join an outage call

I'm always fighting fires

Network is slow

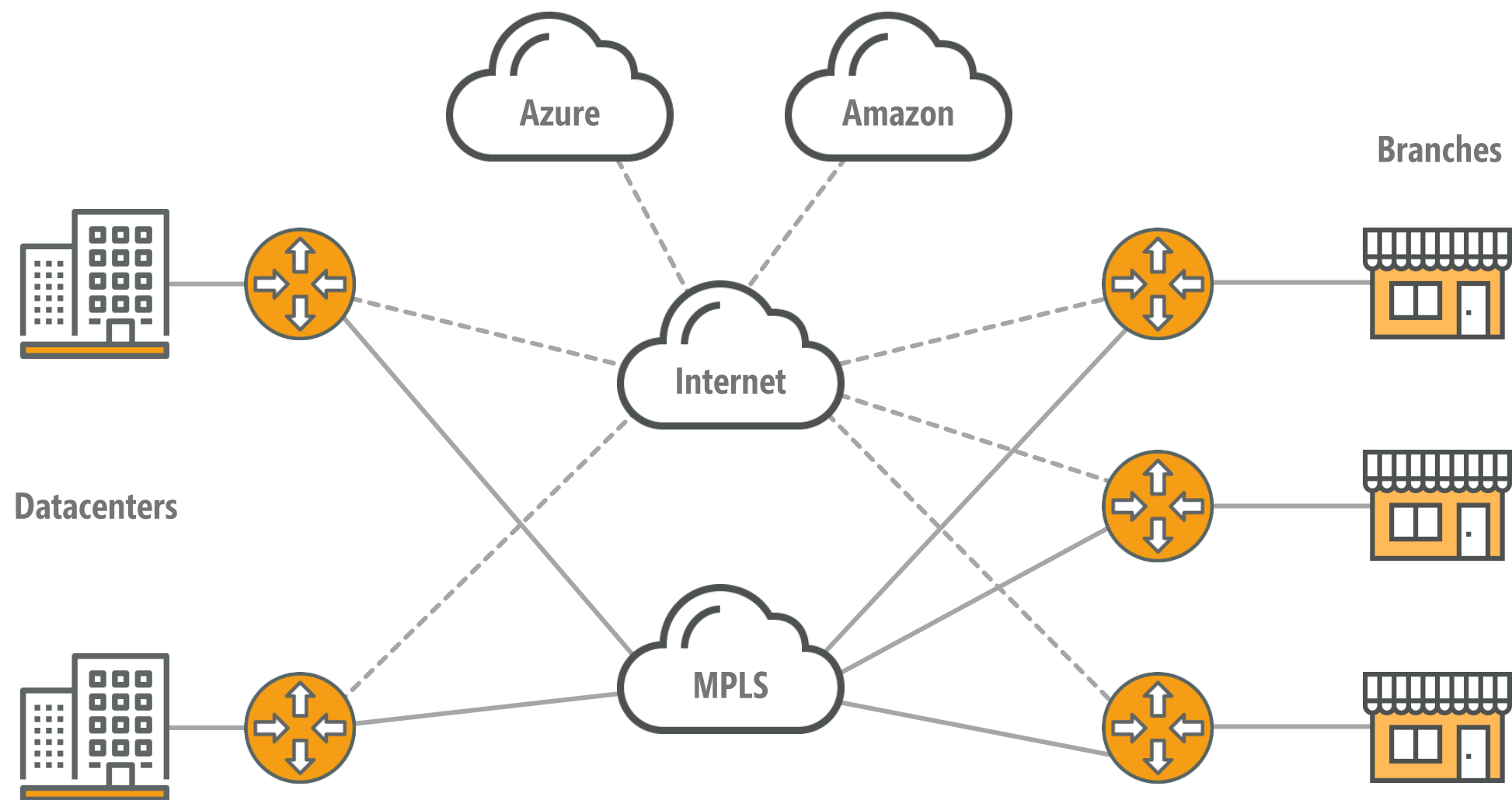
Catalysts For The Digital Revolution



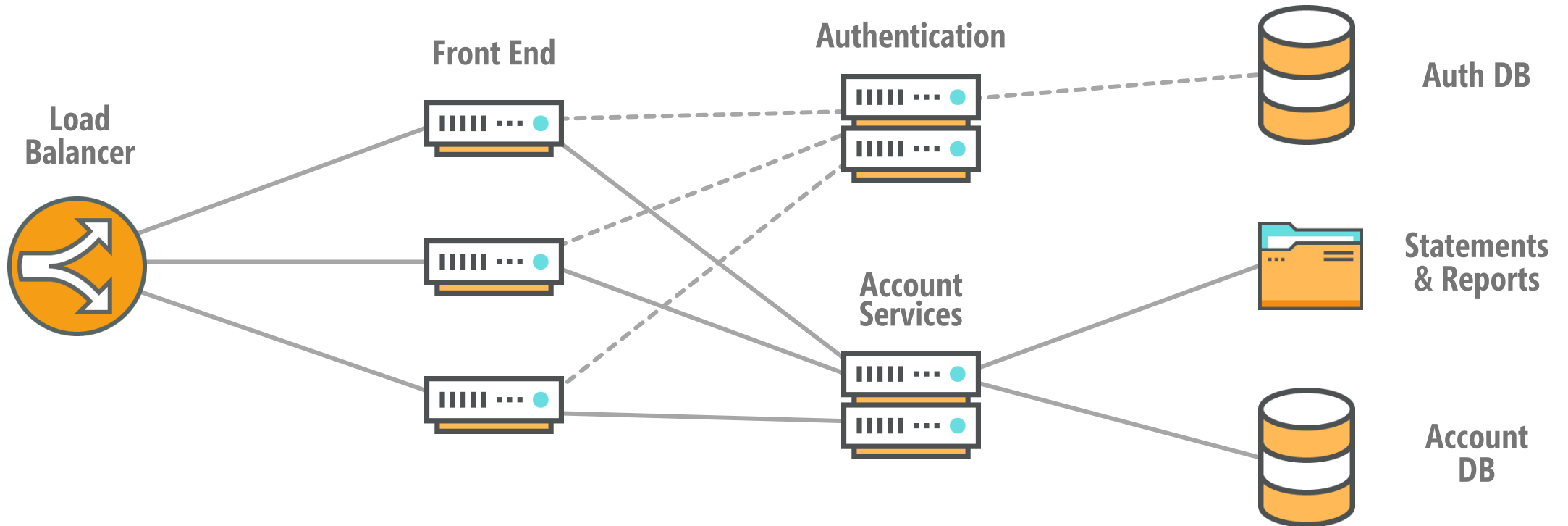
Perspective

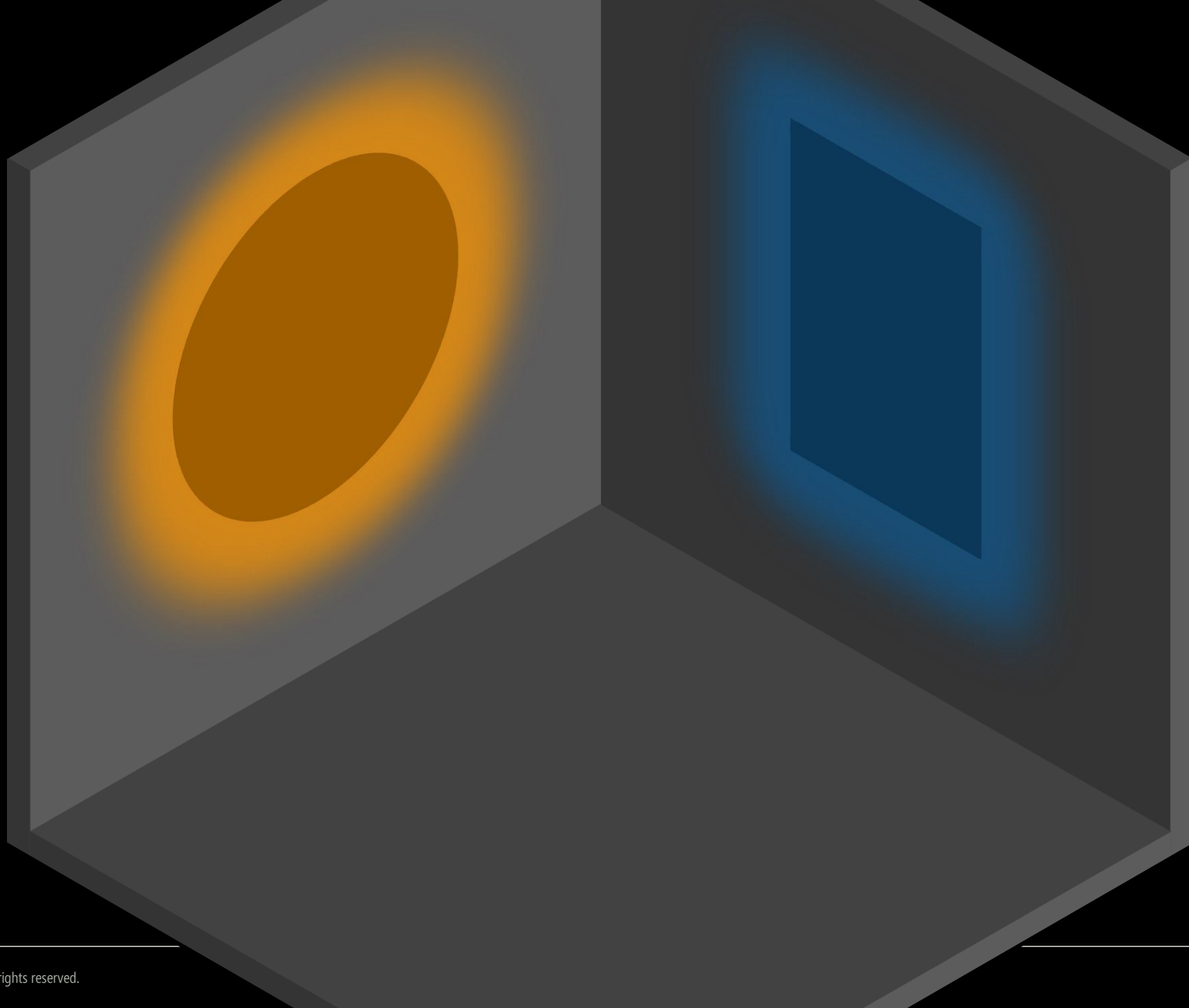


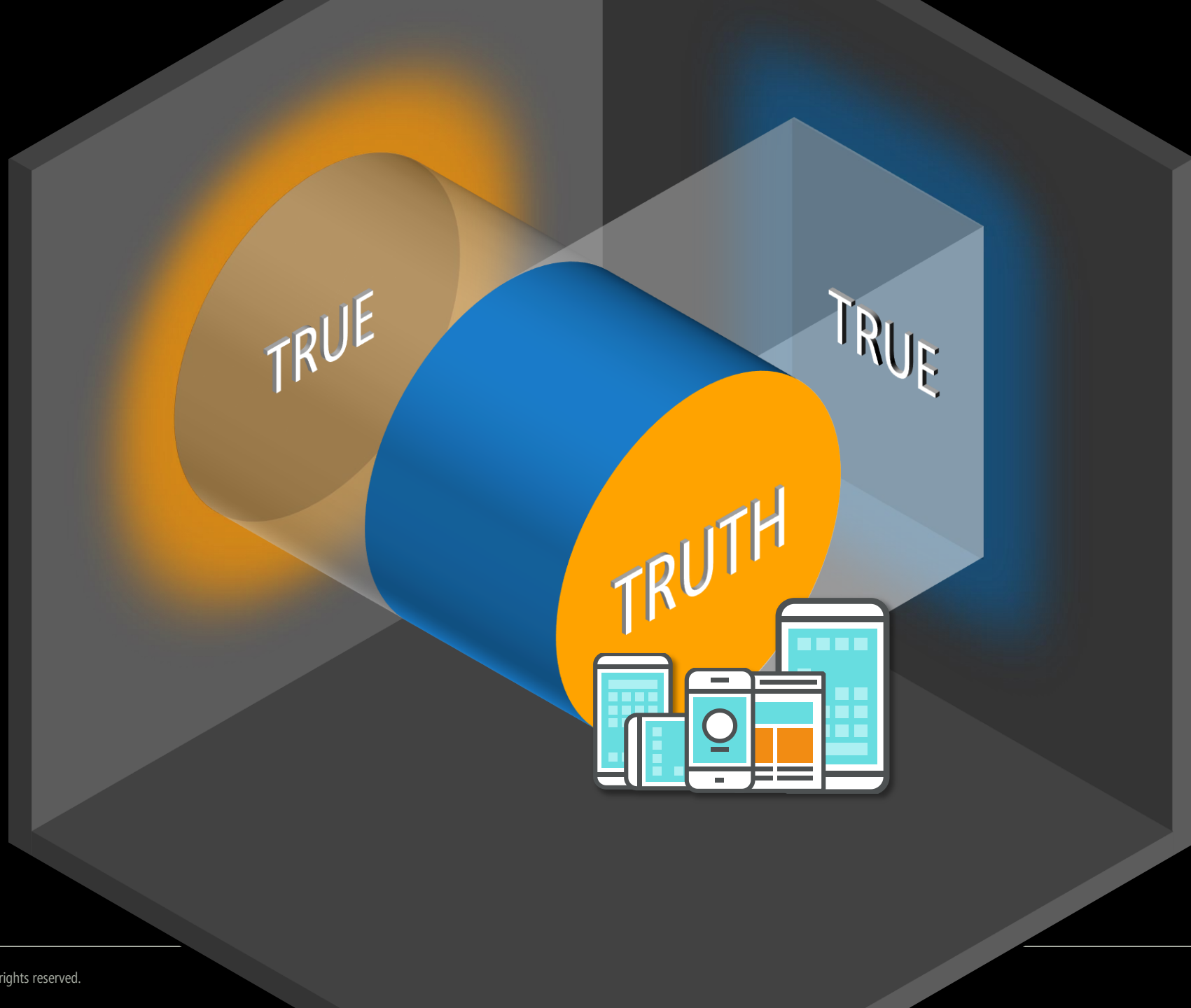
Network Perspective



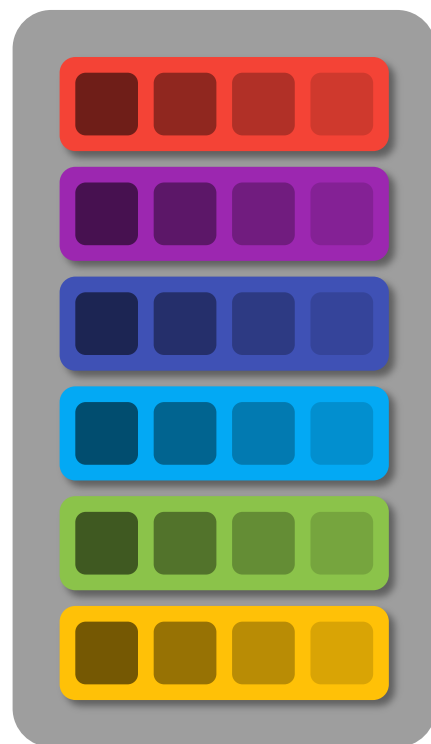
Application Perspective







Increasing Complexity



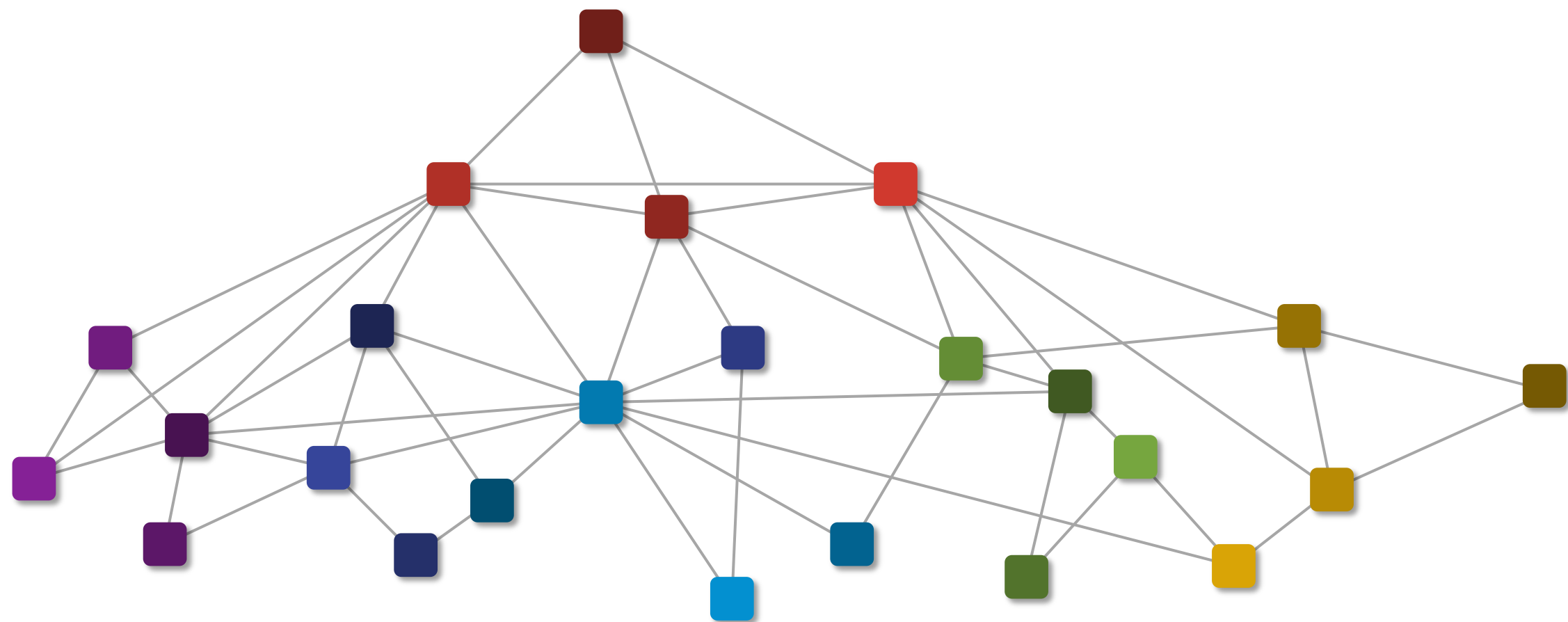
**multi-app
VM**



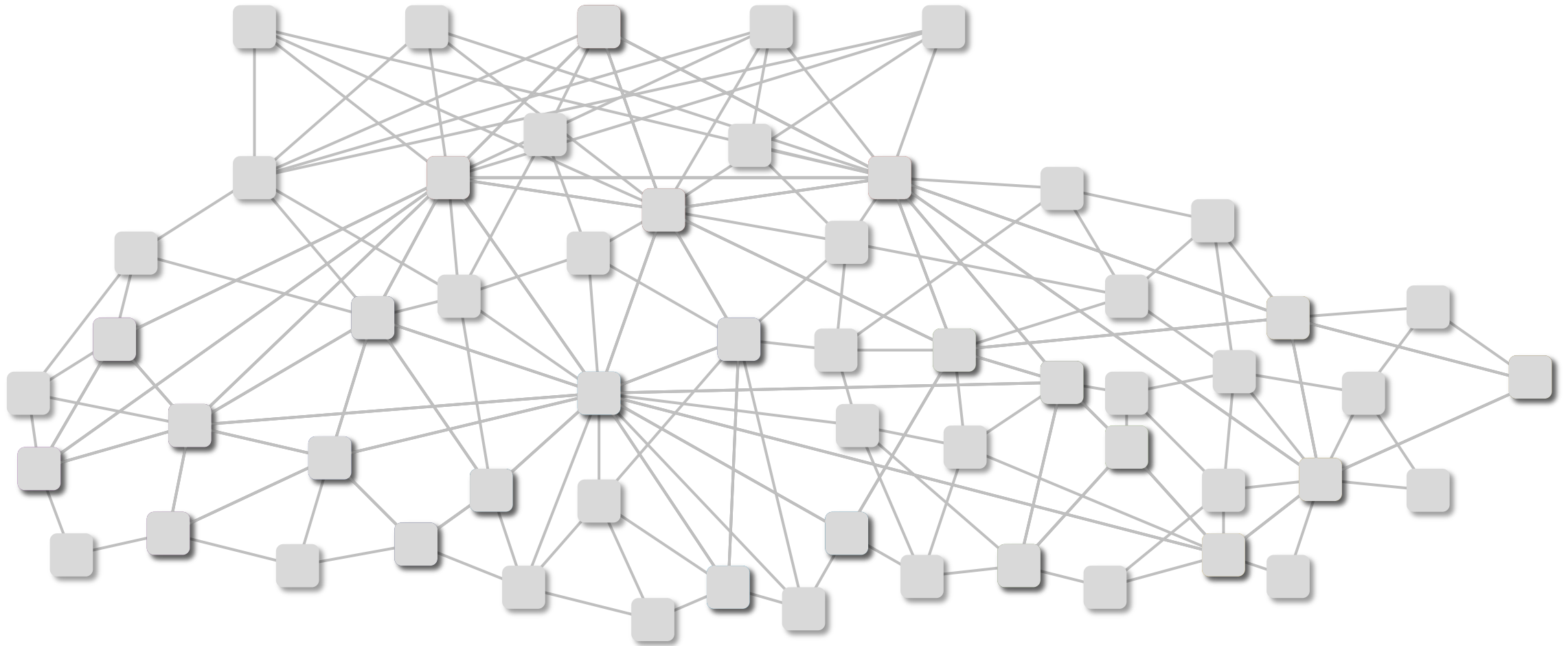
**single-app
containers**

**single-microservice
containers**

Increasing Complexity



Unmanageable Complexity



You think that's hard?

2,582,080,000

7,530,000,000

You think that's hard?

35%

What if ...

Visibility is Security. Security is Visibility

New Search Events across all users inside of Riverbed Save As ▾ Close

index="aternity_demo" sourcetype="aternity:business_activities_raw" | chart count by APPLICATION Last 30 days ▾ Q

✓ 3,398,896 events (2/19/19 12:00:00.000 AM to 3/21/19 2:56:13.000 PM) No Event Sampling ▾ Job ▾ ⏏ ⏏ ⏏ ⚡ Fast Mode ▾

Events Patterns Statistics (107) Visualization

100 Per Page ▾ Format Preview ▾ < Prev 1 2 Next >

APPLICATION ▾	count ▾
Microsoft Outlook	2362325
Salesforce	252902
Skype for Business/Lync	78197
Office 365	71564
Oracle EBS	71462
Salesforce Lightning PROD	58662
Support Site	52602
Webex	47052
Microsoft Excel	38649
Microsoft Word	35198

Critical Company Data

EUE for Cisco WebEx

Versions			Versions
Name	Total Activities	Response Time	
3300.0000.1803.3000	1	43.20s	
3212.0000.1802.2800	3	32.98s	
3111.0000.1701.2800	1	13.52s	
3123.0000.1801.3000	25	11.21s	

Performance Breakdown by Applications and Activities					
		Score	Activity Response		Unique Users
WebEx	I Will Call In	100	51.61s	1	1
WebEx	Call Me	100	13.64s	4	7

Health by Applications and Application Versions

		Users	Health Index	Crash Rate	Page Error Rate	Hang Percent	Usage Time
Microsoft Excel	16.0.9325.2001	1		0.00	0.0%	0.0%	4.6 minutes
Microsoft Excel	16.0.9126.2152	1	1.3	7.84	0.0%	0.1%	2.7 hours
Microsoft Excel	16.0.8201.2213	1		0.00	0.0%	0.0%	3.1 minutes
Microsoft Excel	16.0.8431.2242	3	4.9	0.00	0.0%	0.0%	9.6 hours
Microsoft Excel	16.0.9320.2001	1		0.00	0.0%	0.0%	1.4 minutes
Microsoft Excel	16.0.8431.2215	20	4.6	0.11	0.0%	0.1%	1.6 days
Microsoft Excel	16.0.8431.2236	2	3.3	1.00	0.0%	0.0%	56.3 minutes
Microsoft Excel	Other	13		0.00	0.0%	0.0%	0 seconds
Microsoft Excel	16.0.9312.2008	1	5.0	0.00	0.0%	0.0%	14.1 minutes
Microsoft OneNote	16.0.8431.2242	3	5.0	0.00	0.0%	0.0%	3.1 hours
Microsoft OneNote	16.0.8431.2215	9	4.0	0.65	0.0%	0.3%	4.6 hours
Microsoft OneNote	16.0.9312.2008	1		0.00	0.0%	0.0%	4.5 minutes
Microsoft OneNote	16.0.9320.2001	1	5.0	0.00	0.0%	0.0%	11.4 minutes
Microsoft Outlook	16.0.8431.2236	2	5.0	0.00	0.0%	0.0%	7.5 hours
Microsoft Outlook	16.0.9126.2152	1	4.2	0.32	0.0%	0.1%	9.3 hours
Microsoft Outlook	16.0.9312.2008	1	5.0	0.00	0.0%	0.0%	4.6 hours
Microsoft Outlook	16.0.8431.2242	4	4.8	0.04	0.0%	0.2%	1.2 days
Microsoft Outlook	16.0.9325.2001	1	5.0	0.00	0.0%	0.0%	1.1 hours
Microsoft Outlook	16.0.8431.2215	20	4.6	0.09	0.0%	0.2%	4.4 days
Microsoft Outlook	Other	10		0.00	0.0%	0.0%	0 seconds
Microsoft Outlook	16.0.9320.2001	1	5.0	0.00	0.0%	0.0%	2.5 hours
Microsoft PowerPoi..	16.0.9320.2001	1		0.00	0.0%	0.0%	4.1 minutes
Microsoft PowerPoi..	16.0.9312.2008	1	5.0	0.00	0.0%	0.0%	28.6 minutes
Microsoft PowerPoi..	16.0.8431.2236	1		0.00	0.0%	0.0%	2.7 minutes
Microsoft PowerPoi..	16.0.8431.2215	15	4.7	0.12	0.0%	0.0%	8.7 hours

Measurements

Measurement Group Health Sort By First Breakdown

Applications

Application Type Desktop Application (Mehrere Werte)

Breakdowns

First Applications Second Application Versions

Filters

First Filter Selection OS Name First Filter Values (Alle)

Second Filter Selection Business Location Second Filter Values (Alle)

Third Filter Selection Department Third Filter Values (Alle)

Visibility is Security. Security is Visibility

New Search Top Users Save As ▾ Close

index="aternity_demo" sourcetype="aternity:business_activities_raw" APPLICATION=Salesforce | chart count by USERNAME Last 30 days ▾ Q

✓ 252,933 events (2/19/19 12:00:00.000 AM to 3/21/19 3:00:54.000 PM) No Event Sampling ▾ Job ▾ || ■ 🖨 ↓ ⚡ Fast Mode ▾

Events Patterns **Statistics (536)** Visualization

100 Per Page ▾ Format Preview ▾ < Prev 1 2 3 4 5 6 Next >

USERNAME ↕	count ▾
ms	83449
jm	24190
rpr	7042
ny	6670
bf	5421
bm	4480
aa	4468
dc	3926
mur	3660
tm	3327
sn	3284
c	3229

What is he doing?

Visibility is Security. Security is Visibility

index="aternity_demo" sourcetype="aternity:business_activities_raw" APPLICATION=Salesforce USERNAME=ms chart count by ACTIVITY		Last 30 days ▾	🔍
✓ 83,449 events (2/19/19 12:00:00.000 AM to 3/21/19 3:12:09.000 PM) No Event Sampling ▾		Job ▾	⏏
Events	Patterns	Statistics (23)	Visualization
100 Per Page ▾		Format	Preview ▾
ACTIVITY ↕			count ▾
Case: View Cases			82226
Case: View			608
Other Pages			198
Selecting Views from Case Page			145
Case Edit			61
Viewing Case Details			48
Case: Change Owner			41
Case: Close			29
Case Close			19
Cases: Home			14
Create RMA			9

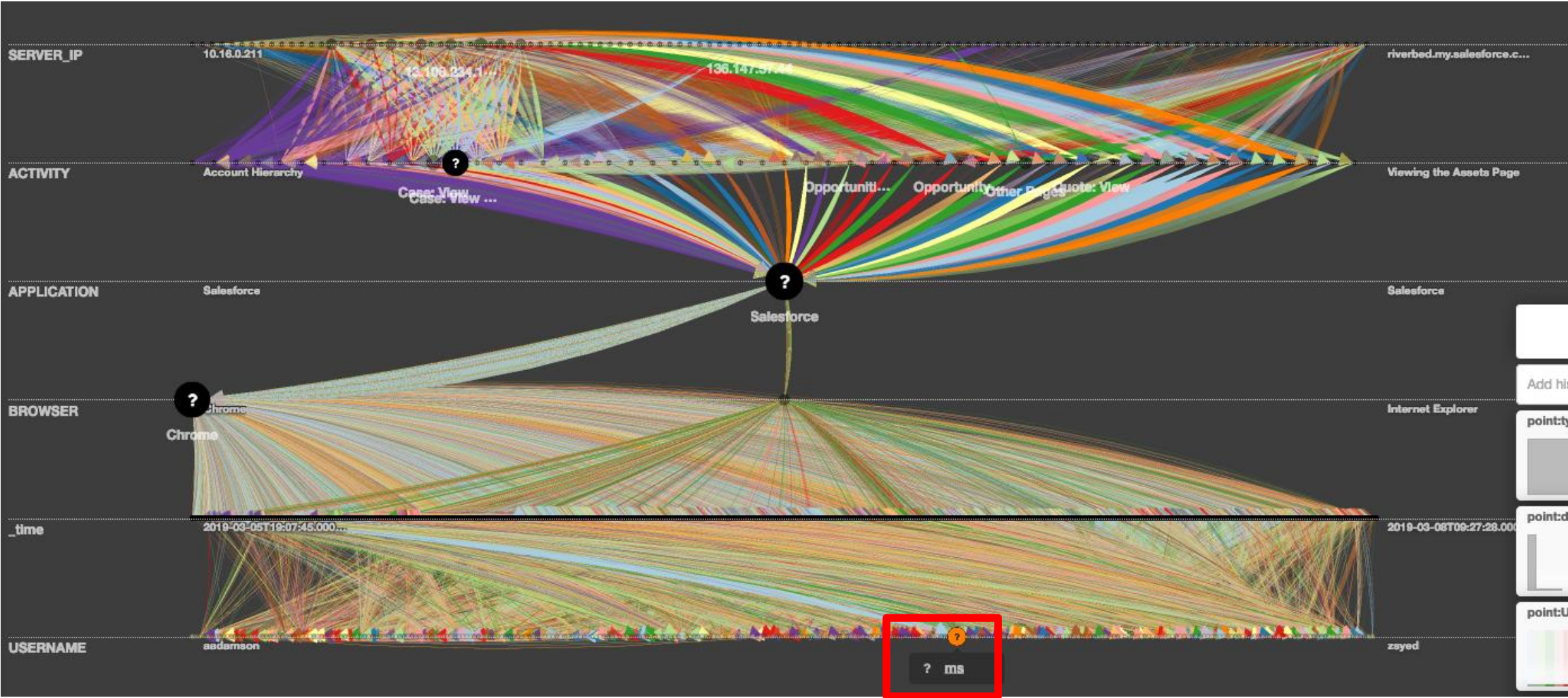
The Five W's:

```
SERVER_HOSTNAME: .iad.r.my.salesforce.com
SERVER_IP: 13.108.233.26
SERVER_NAME: .my.salesforce.com
SERVER_TIME: 0.309
SERVING_DEVICE_NAME: ms
SERVING_DEVICE_TYPE: Laptop
STORE_ID: N/A
STORE_TYPE: N/A
SUBNET: 192.168.0.0/24
TIMESTAMP: 2019-03-05T18:00:07-05:00
TITLE: RA
USERNAME: ms
USER_DEPARTMENT: TAC Americas East
USER_DOMAIN: N
USER_EMAIL_ADDRESS: M @riverbed.com
USER_FULL_NAME: M
USER_OFFICE: Home Office TX
USER_ROLE: Other
USER_TITLE: Sr Escalation Engineer
```

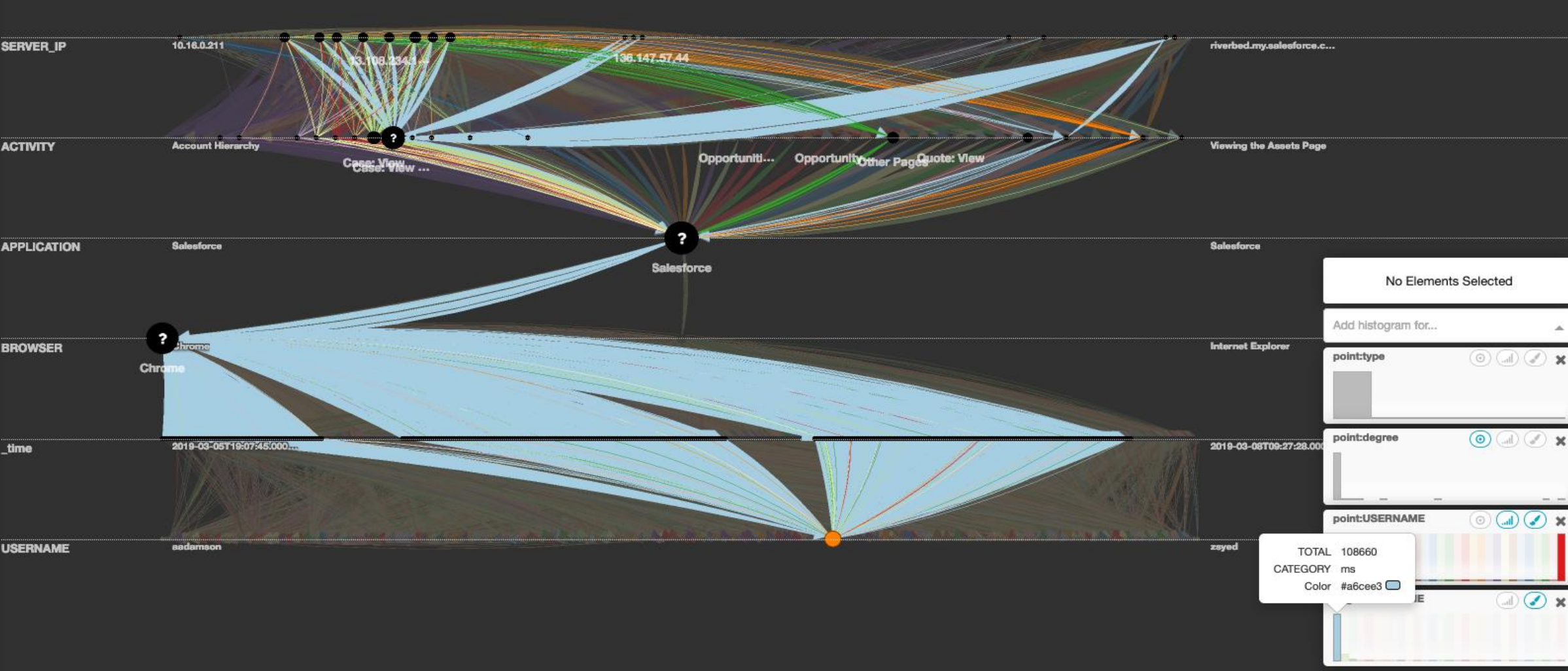
Who, What, When, Where, How

Support Engineer In TX; Scraping Case Data, on
March 2019, using Chrome Browser Pugin

ML/AI???



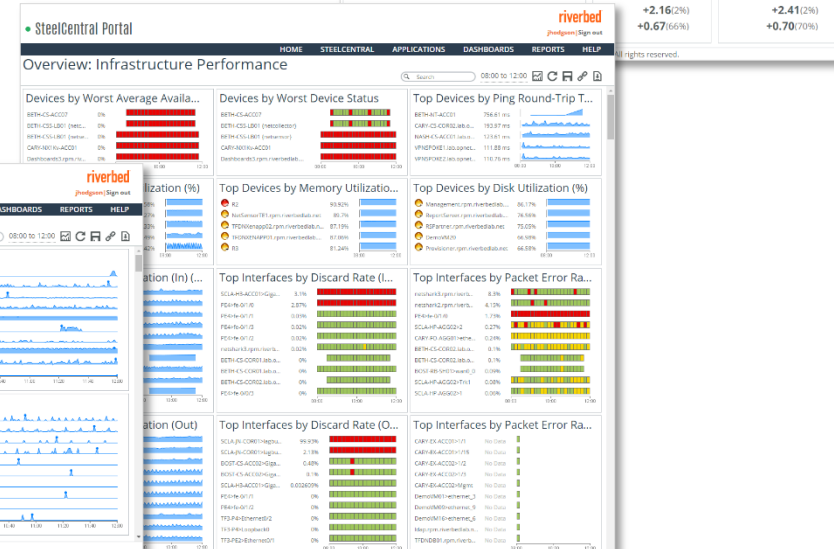
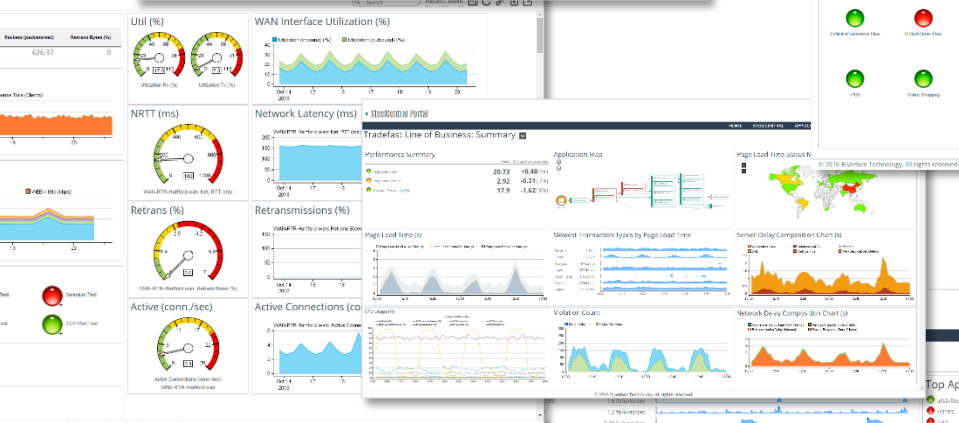
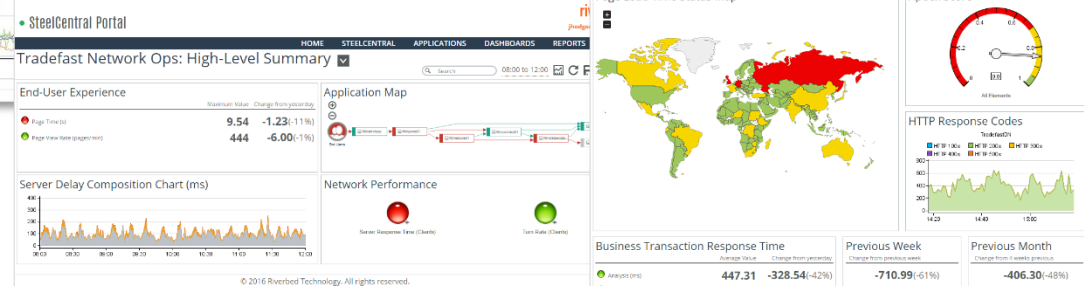
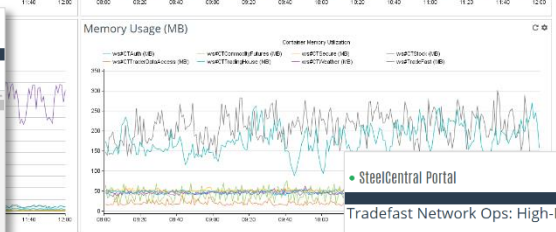
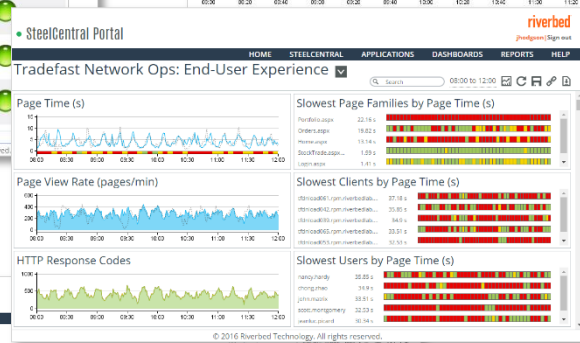
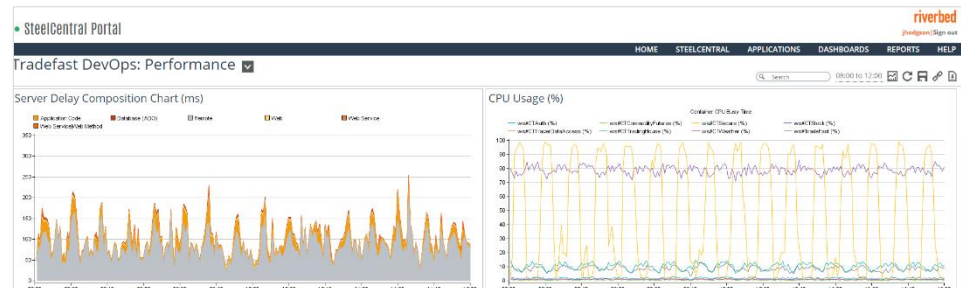
ML/AI!!!



ML/AI

It really really matters ...

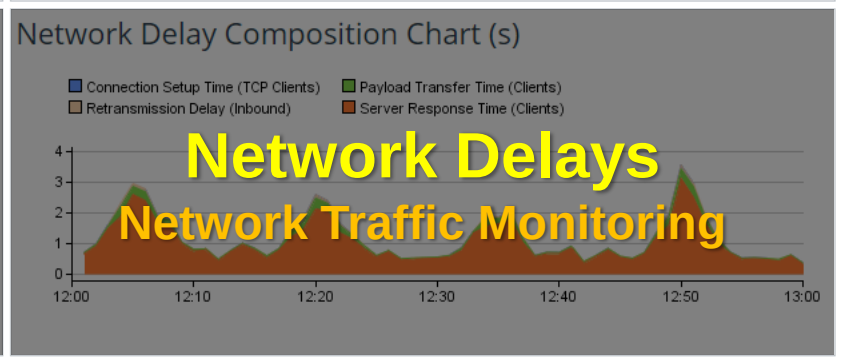
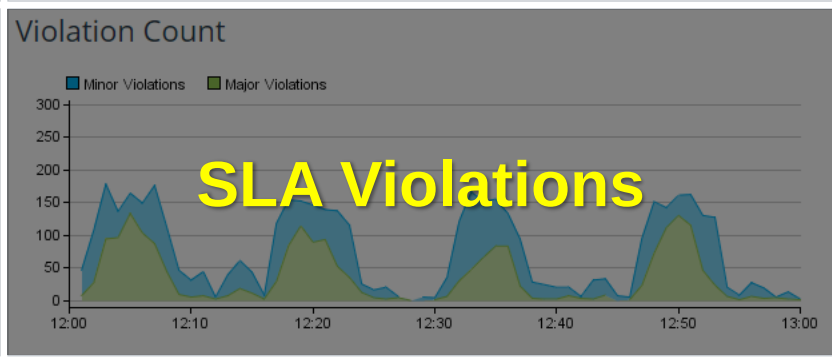
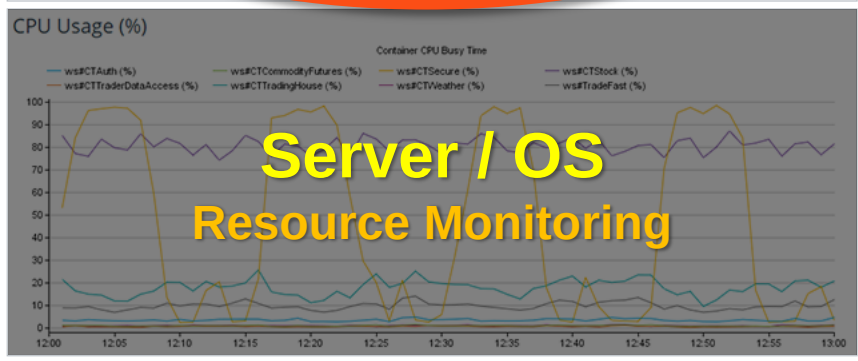
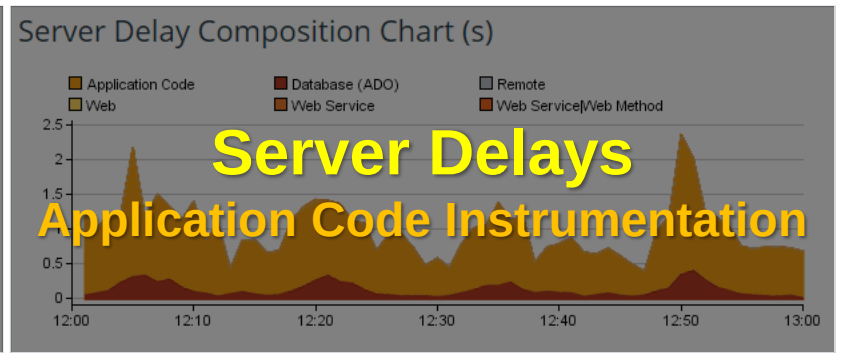
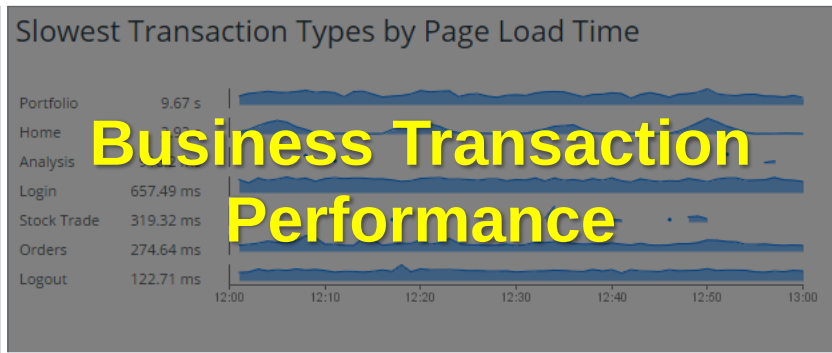
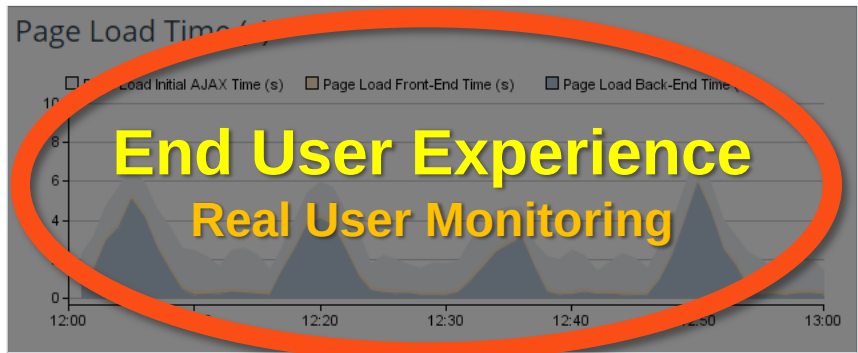
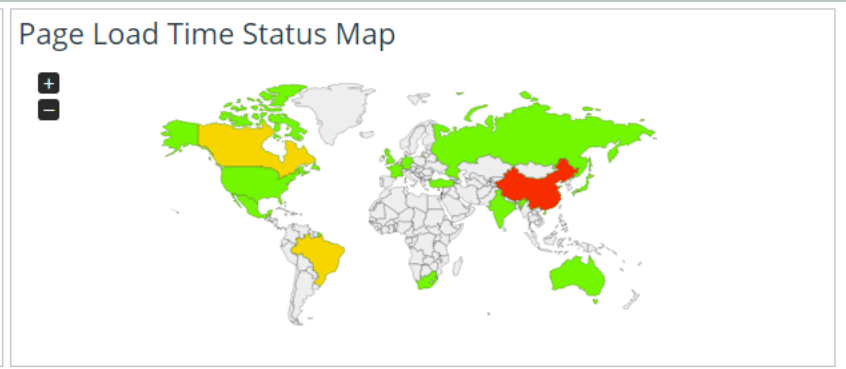
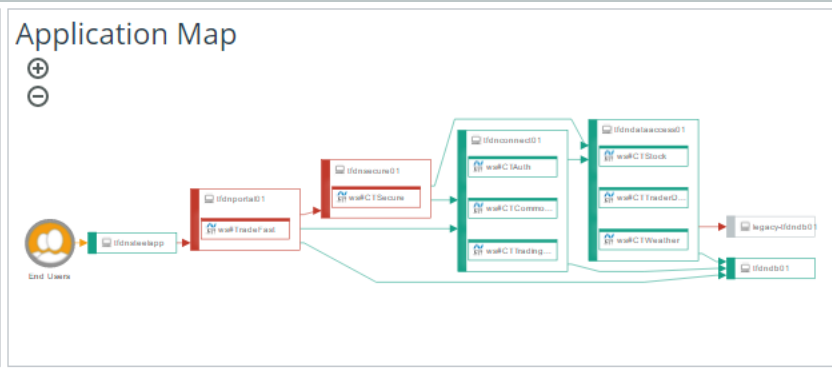
He who has the data wins!
She who has the
RIGHT
data wins!



Tradefast Line of Business: Summary

12:00 to 13:00

	Value	Change from yesterday
Page Load Count	20.73	+0.48(2%)
Page Load Time (s)	2.92	-0.21(-7%)
Violation Percentage (%)	17.9	-1.62(-8%)



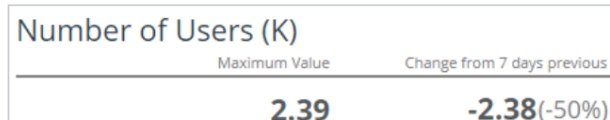
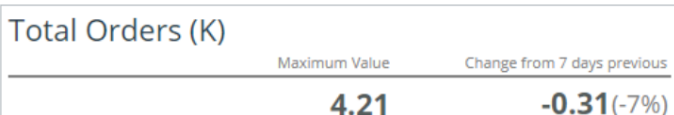
Performance Breakdown by Applications and Activities

		Score	Activity Response	Unique Users	Total Activities
Order Execution	Map view	3	4.88s	8	4,499
Order Execution	Login	30	3.72s	8	3,470
Time and Expense	Create Report	56	1.01s	4	1,044
Microsoft SharePoint	Open Item	61	5.33s	5	10,255
Skype for Business/Lync	Audio/Video Call	64		11	473
BranchPortal	Customer Lookup	68	3.23s	21	8,834
BranchPortal	Close Account	77	2.86s	11	7,639
Microsoft Outlook	Send Mail To Outbox	78	0.68s	25	62,861
SAP	Search Account	80	5.22s	25	60,640
BranchPortal	Deposit Cash	80	2.81s	11	7,644
Microsoft SharePoint	Share Item	84	4.24s	5	3,108
TradeFast	Other Pages	85	3.36s	3	9,895
Project Tracker	Update	88	5.36s	8	2,131
Microsoft SharePoint	Save Item	88	5.03s	5	7,091
SAP	Search Query	89	4.08s	3	6,251
Microsoft Outlook	Open Mail	90	2.85s	16	4,263
Point of Sale	Search Customer	90	0.29s	5	1,566
SAP	Save Record	91	4.01s	12	20,672
SAP	Open Opportunity	91	3.86s	25	33,628

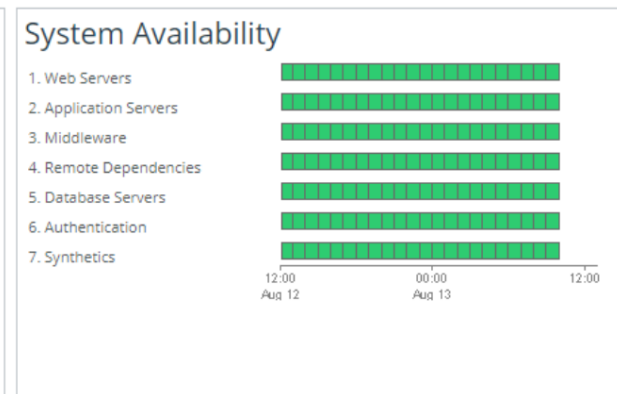
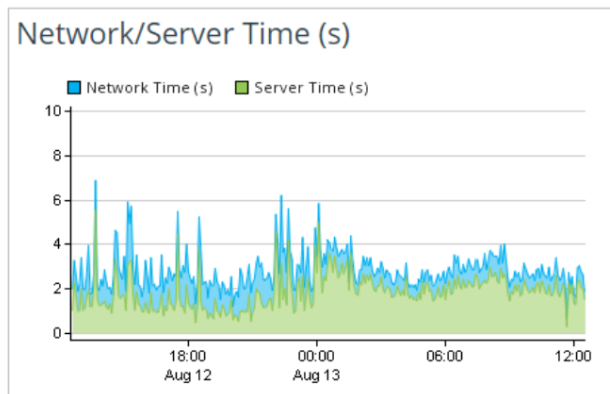
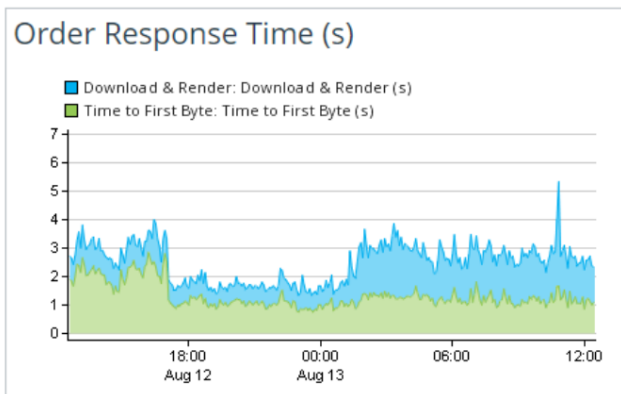
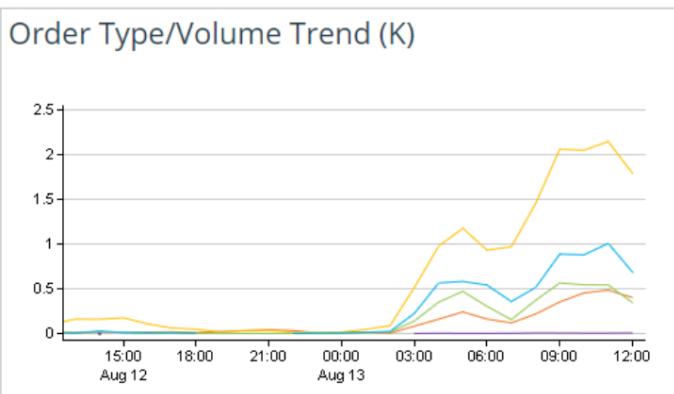
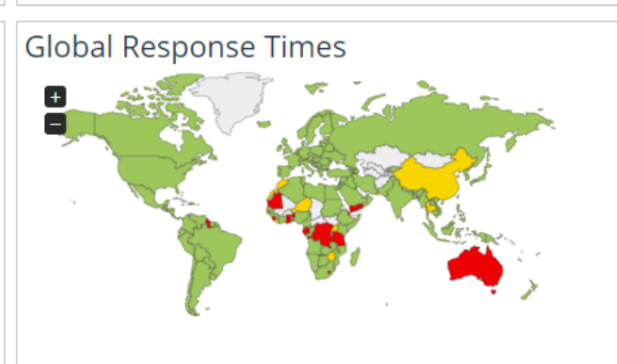
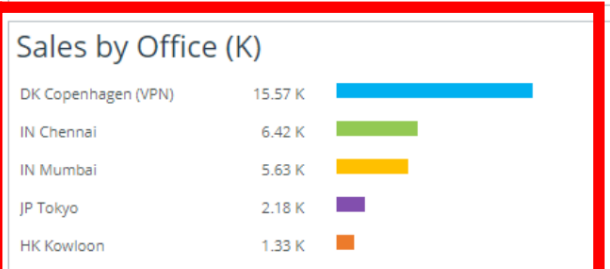
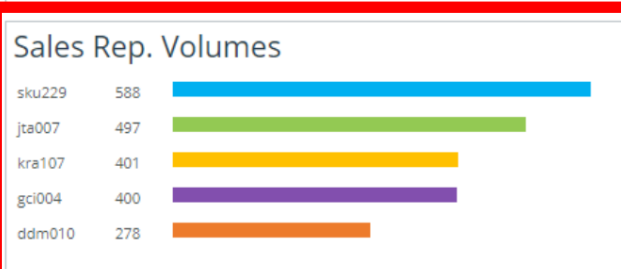
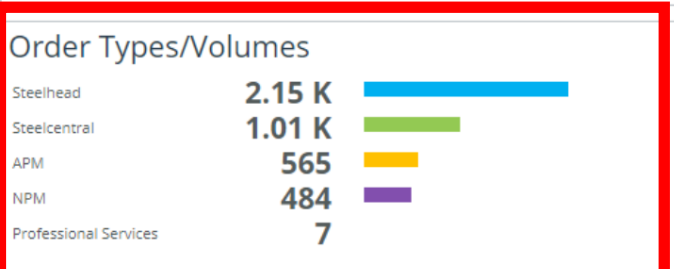
Cost Analysis by Applications and Activities

		Activity Response	Total Activities	Lost Hours	Lost Productivity
SAP	Search Account	5.22s	185,262	268.86	\$67,215
TradeFast	Home	2.76s	287,030	216.92	\$54,230
SAP	Open Opportunity	3.86s	102,782	110.17	\$27,542
Four App	Home	1.33s	273,030	103.12	\$23,761
SAP	Create Query	3.94s	82,720	90.44	\$22,611
SAP	Login	3.87s	83,430	89.80	\$22,449
SAP	Save Record	4.01s	63,153	70.29	\$17,571
Microsoft OneNote	Launch	4.62s	37,464	48.08	\$12,021
BranchPortal	Launch	4.51s	37,562	47.10	\$11,774
Microsoft SharePoint	Open Item	5.27s	31,409	45.95	\$11,489
Microsoft SharePoint	Open Folder	5.19s	25,410	36.61	\$9,152
Microsoft Outlook	Send Mail To Outbox	0.68s	191,877	36.23	\$9,059
Microsoft Outlook	Preview Mail	2.23s	57,046	35.31	\$8,828
Salesforce	Open Account	1.28s	94,815	33.64	\$8,409
Microsoft SharePoint	Save Item	4.97s	21,671	29.90	\$7,476
Microsoft SharePoint	Open Dialog	5.36s	17,313	25.77	\$6,442
Microsoft Outlook	Open Calendar	2.03s	43,959	24.74	\$6,184
Microsoft Outlook	New Mail	1.99s	43,962	24.27	\$6,067
BranchPortal	Customer Lookup	3.23s	27,016	24.24	\$6,060
Salesforce	Login	1.44s	57,826	23.13	\$5,784

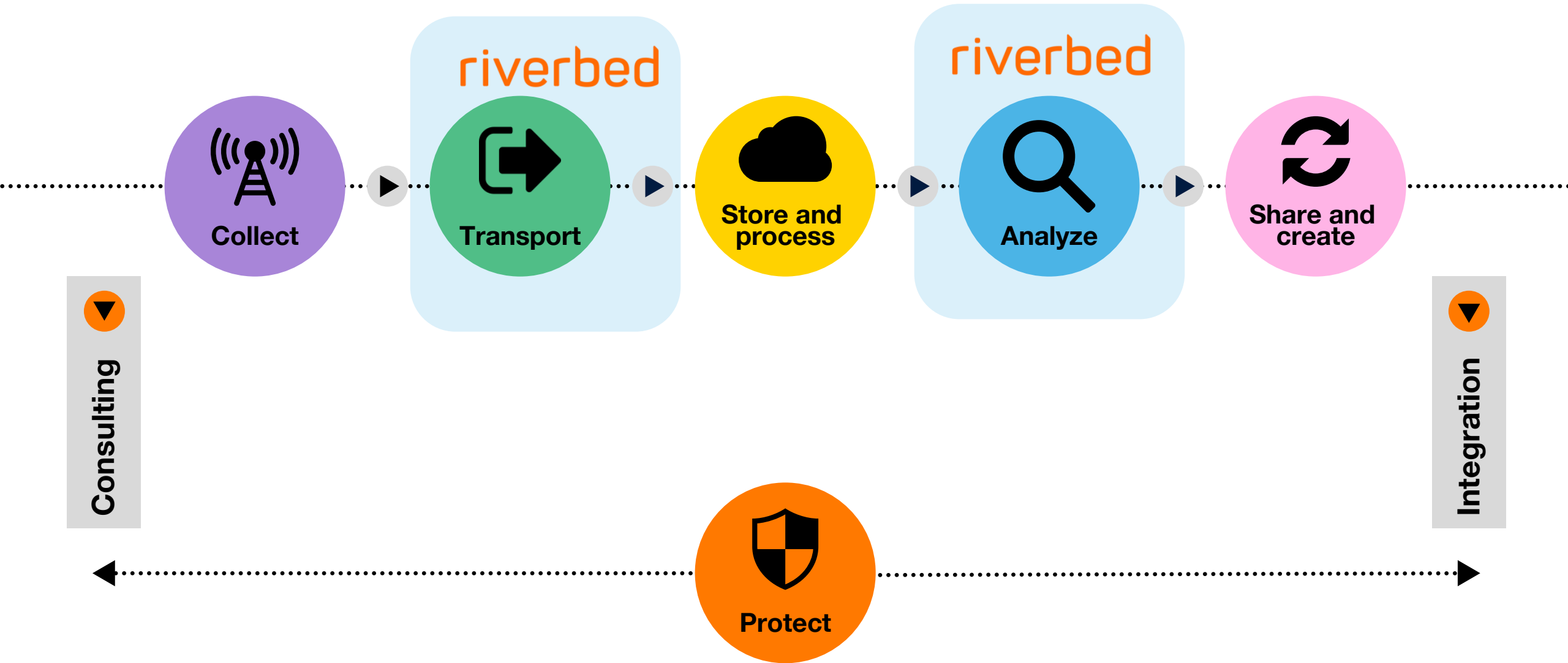
Business Metrics



riverbed



Orange & Riverbed Bringing together the necessary expertise to support our customers in their data journey



Orange Visibility aaS powered by Riverbed SteelCentral



Integrated, End-to-End Performance Monitoring

Digital User eXperience

End-User Experience view & analysis
Aternity



Business
Owners /
Managers

Level 2

Level 3

Level 4

What it does

Global network health monitoring solution with customization

High-level troubleshooting Management

Deep troubleshooting for servers and codes

What is provided

Applications
Network View & Analysis

Applications / Servers
View & Analysis with data capture

Applications / Servers
Internals View/Analysis with Optimisation

What Riverbed Modules

NetProfiler

AppResponse/Portal + L2

AppInternals + L3



IT
Manager



Web, App &
D/Base Mgrs



Web, App &
D/Base Mgrs

Thank you



**Business
Services**

riverbed
The Digital Performance Company