



# **NETworking Summit Online**

## **dakoServ – 16.06.2020**

**Gerhard Pirkl, Thorsten Kaiser**

**riverbed®**

FORTUNE 500

**30M**  
Employees





riverbed



Morgan Stanley

触控科技  
Chukong Technologies



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J.P.Morgan

indeed  
one search. all jobs.

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NTT  
NIPPON TELEGRAPH AND TELEPHONE  
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Cargill

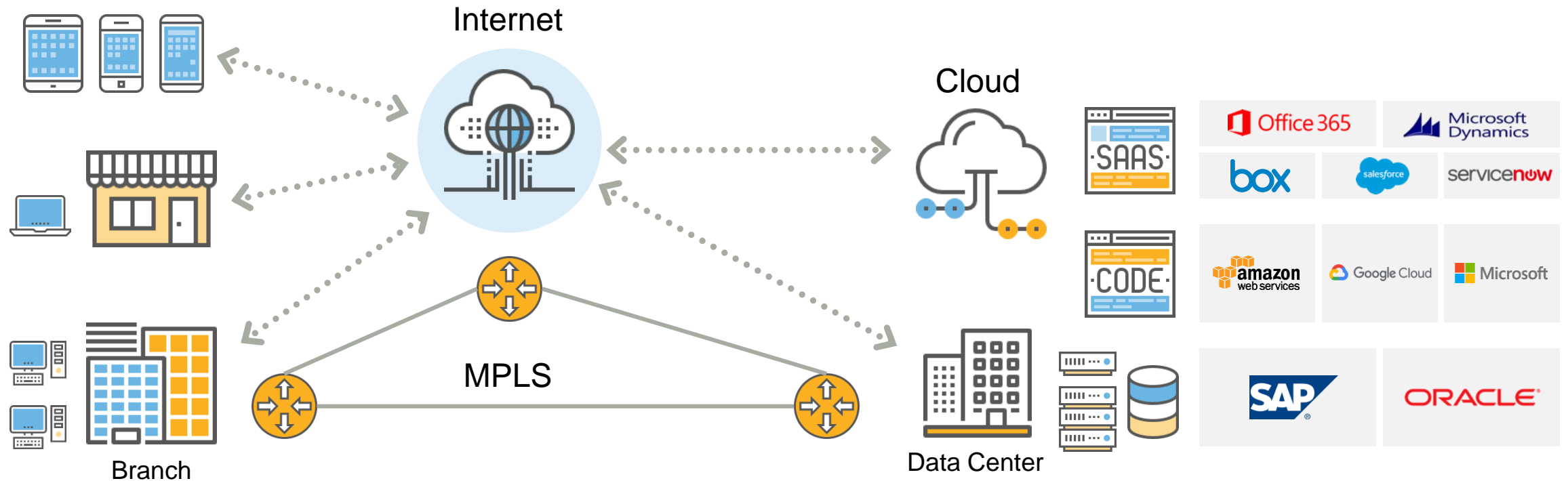
# The Evolution the Digital Enterprise



Users & Devices



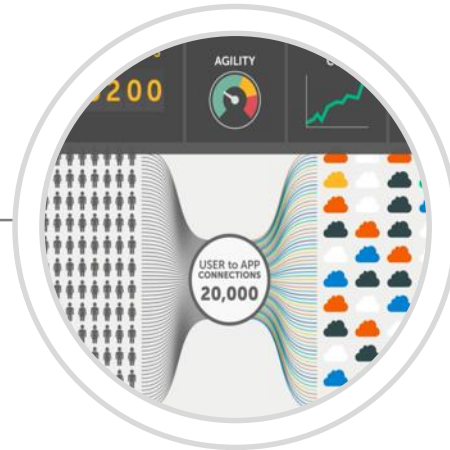
Applications & Data



# Digital Performance Is Challenging for Enterprise IT



**Loss of control** with **low visibility** due to 3rd-party ownership



**Growing complexity** of user-to-app connections due to **dynamic** and **distributed** workforces



**Unpredictable performance** yields lower productivity and **higher business costs**

# Application Performance = Business Value

## SPEED



Productivity  
Agility  
Time

## CONSISTENCY



Reliability  
Predictability  
Proactivity

## AVAILABILITY



Loyalty  
Dependability

# Unpredictable Network Performance at Home



Compromised Network Stability



Competing with the kids

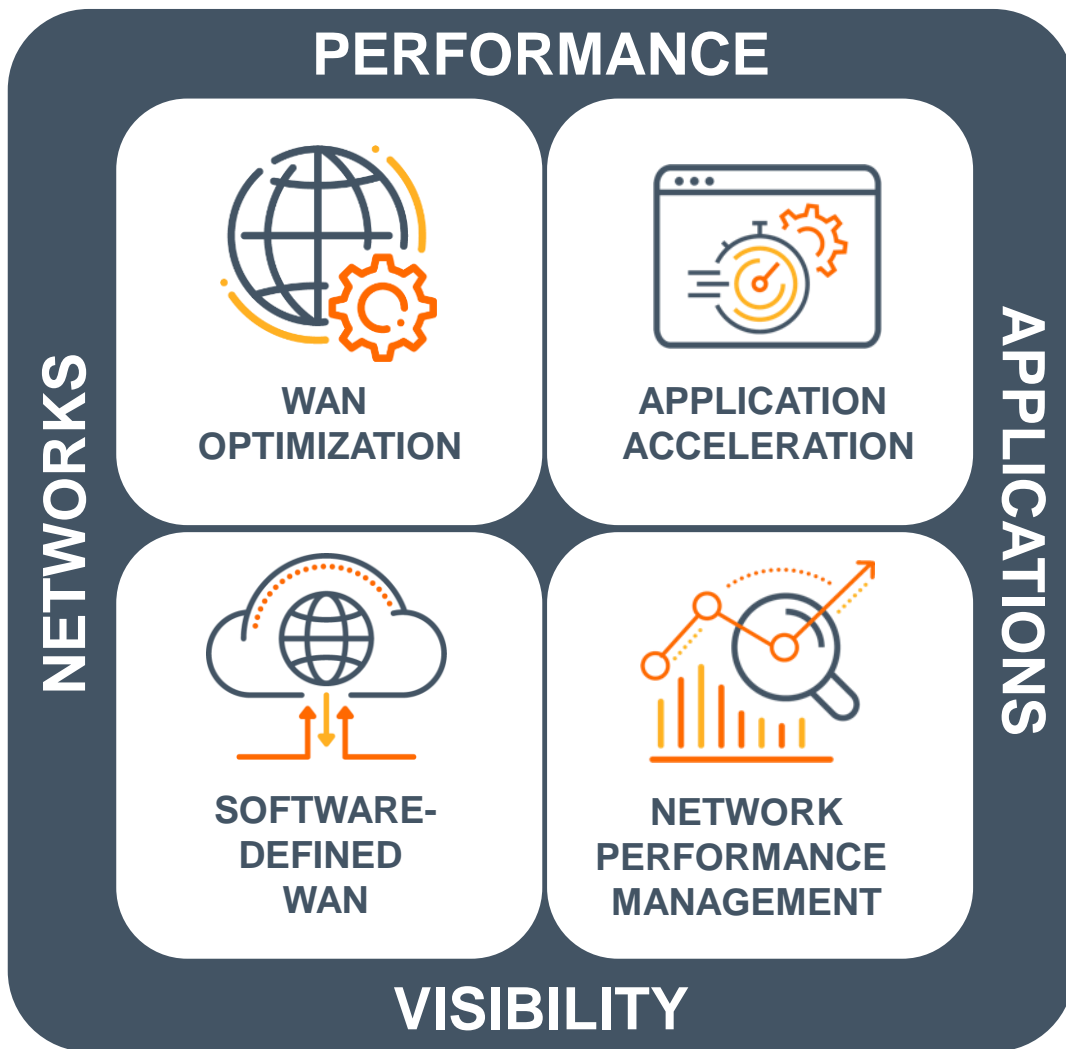


Collaboration with video and file share

So what can we do to  
make sure  
employees can be  
**productive** wherever  
they work?







riverbed

For the world's largest organizations,

99% Fortune 100

we deliver exceptional Network Performance

92% Fortune 500

and Visibility

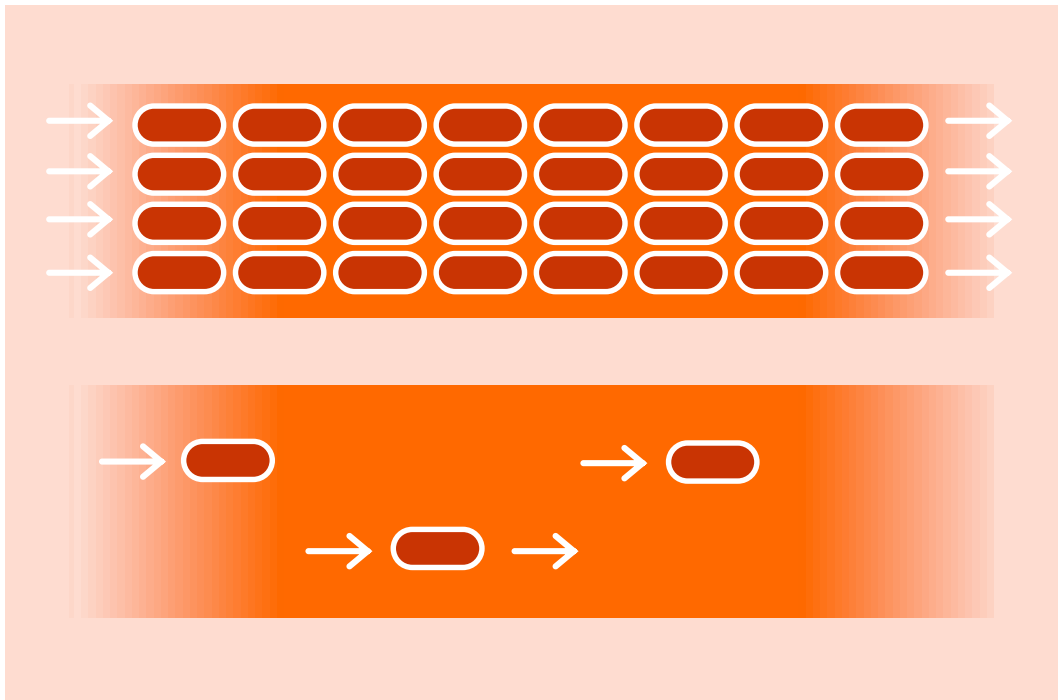
77% Global 500

for Any Application

# 2 Basic Concepts

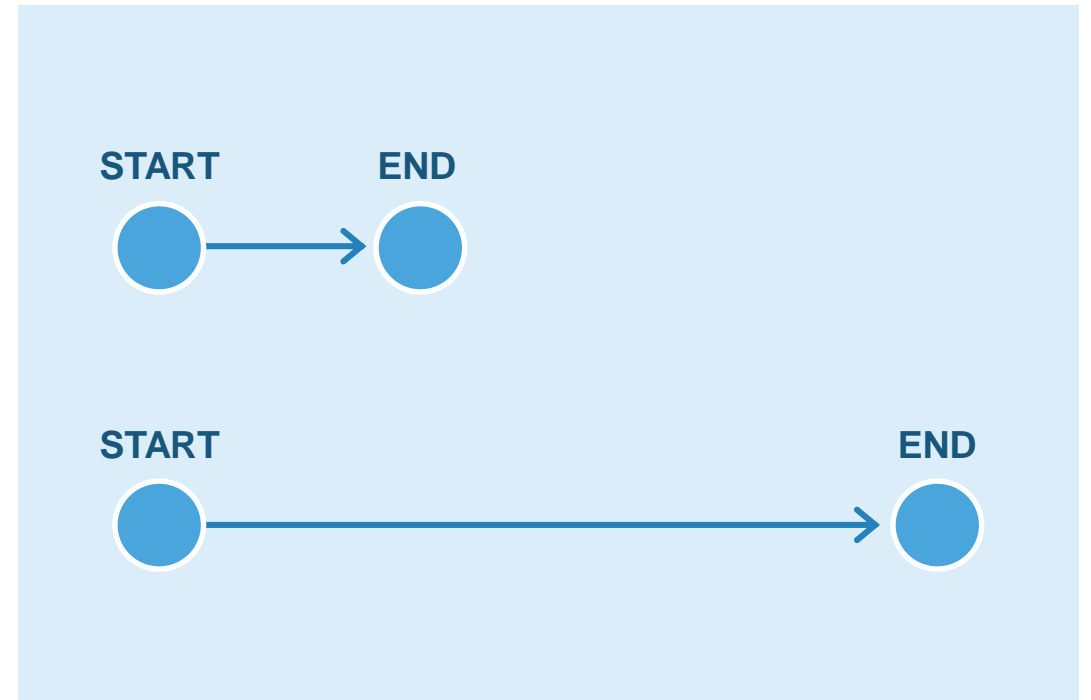
## BANDWIDTH

How congested are the pipes that you have?



## LATENCY

How far does information need to travel?



# Same house, same day, different latency

11AM

```
64 bytes from 40.97.148.226: icmp_seq=46 ttl=244 time=80.122 ms
64 bytes from 40.97.148.226: icmp_seq=47 ttl=244 time=91.398 ms
^C
--- outlook.com ping statistics ---
48 packets transmitted, 44 packets received, 8.3% packet loss
round-trip min/avg/max/stddev = 49.698/196.425/787.140/182.716 ms
```

3PM

```
64 bytes from 40.97.164.146: icmp_seq=22 ttl=240 time=69.986 ms
64 bytes from 40.97.164.146: icmp_seq=23 ttl=240 time=70.414 ms
^C
--- outlook.com ping statistics ---
24 packets transmitted, 24 packets received, 0.0% packet loss
round-trip min/avg/max/stddev = 68.082/91.614/259.460/47.888 ms
```

# 3 Things Riverbed Does Really Well

Making Networks and Applications Perform better Anywhere

1

**Reduce the amount of data**  
sent over the WAN  
– “De-duplication”

2

Modify and  
**prioritize the transport**  
of traffic over the WAN

3

**Reduce the**  
**application round trips**  
taken over the WAN

## What does this mean?

- Applications are FAST, CONSISTENT, AVAILABLE at home or anywhere
- User has a better day and gets more done

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**Any application,**  
**anywhere**

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# Results matter!



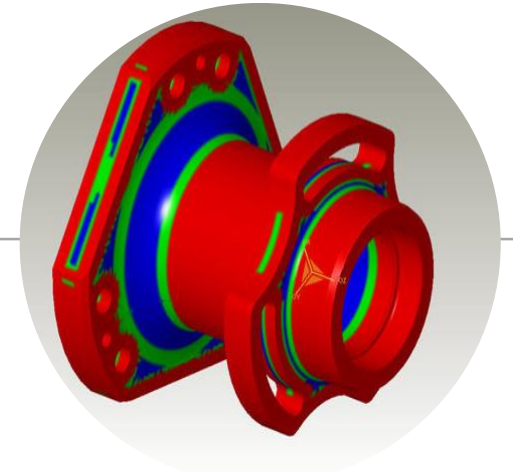
**10x faster SaaS**  
(O365, Salesforce,  
ServiceNow, Box  
and more)



**>99% data reduction**  
on any network



**75x faster downloads**  
On-prem SharePoint

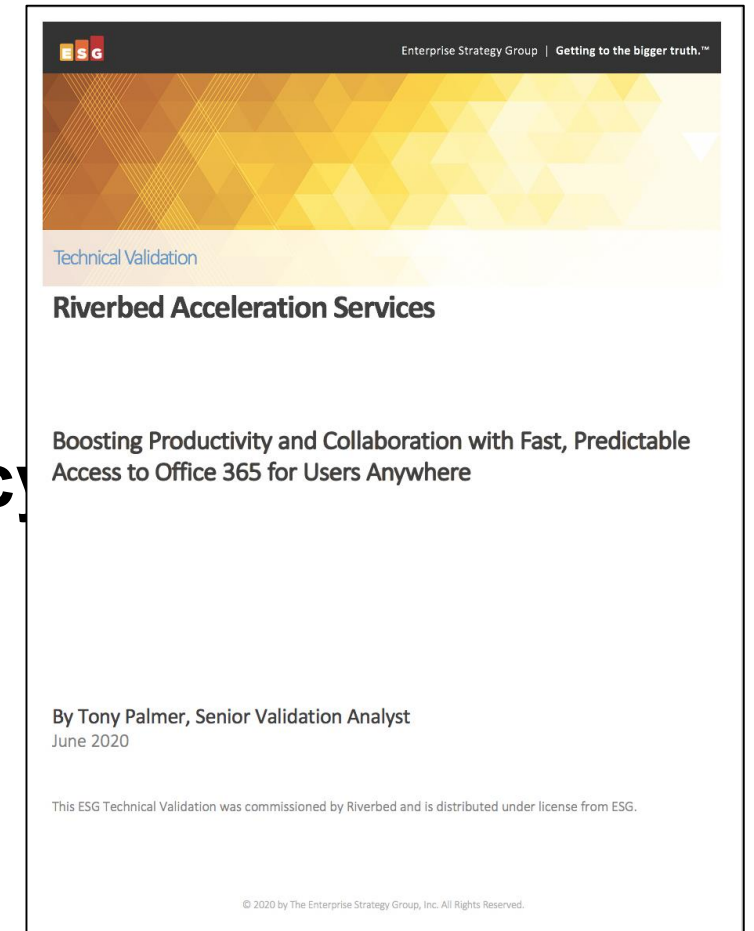


**40x faster collaboration**  
110 MB CAD files

# Performance Validation by ESG

- **3 Key Metrics:**

- 1. Latency** as it relates to **app performance**
- 2. Data reduction** specific to **network efficiency**
- 3. Productivity savings** to enterprise



# 13 locations tested worldwide

Sydney, Tokyo, Mumbai, New Dehli, Dubai, Frankfort, Paris, London, US East/West various

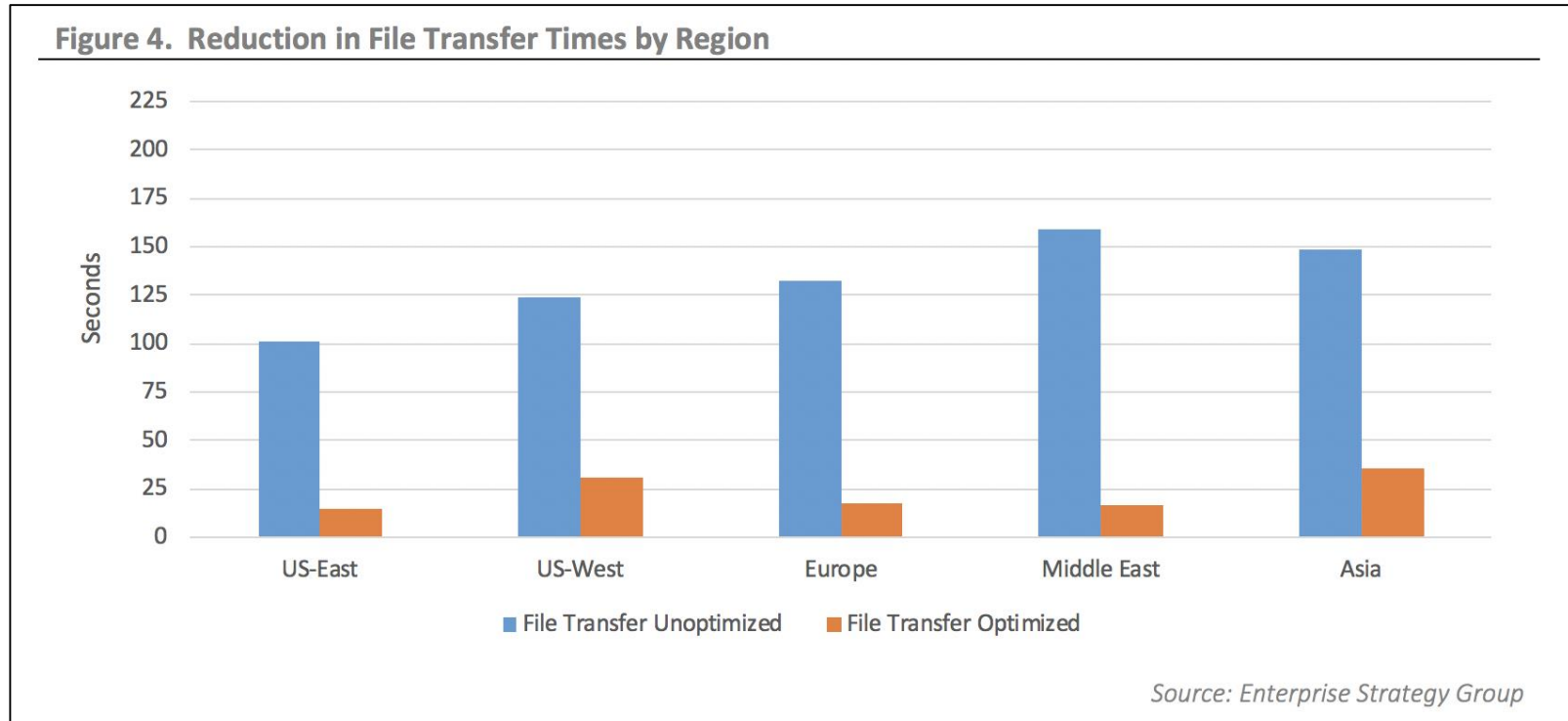


Source: Enterprise Strategy Group



# Latency matters, not bandwidth

ESG saw significant reductions in file transfer times in every location tested



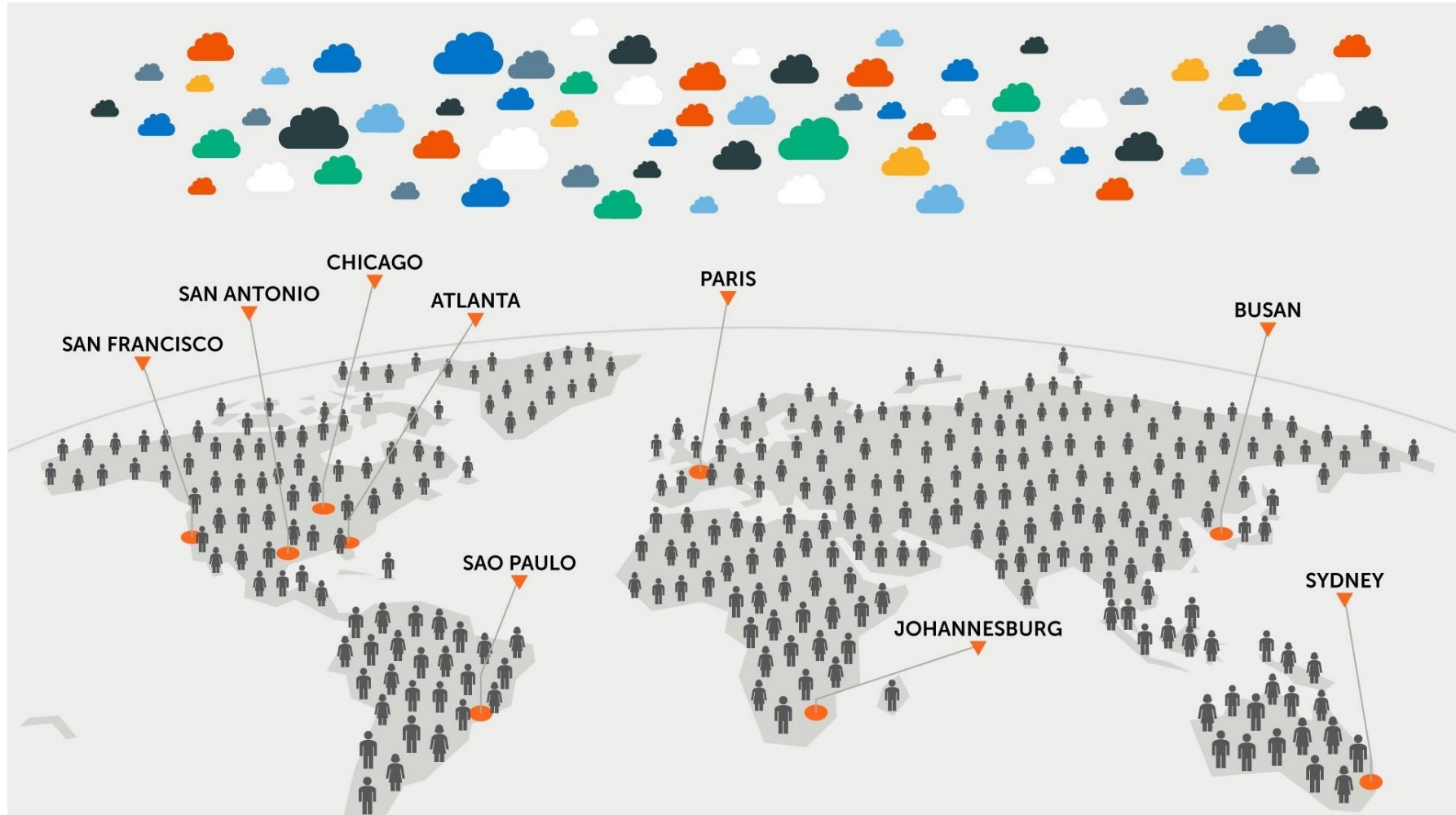
*'as latency increased, the file transfer time decreased, regardless of available bandwidth'*  
**(MORE BANDWIDTH DOES NOT EQUAL MORE SPEED!)**

# Riverbed Client Accelerator: A Deeper Look



# Consider the Modern Workforce

Increasingly distributed, dynamic, and SaaS connected



# Client Accelerator: Supported Scenarios



## Connectivity

Direct via internet  
**OR** through VPN



## App Location

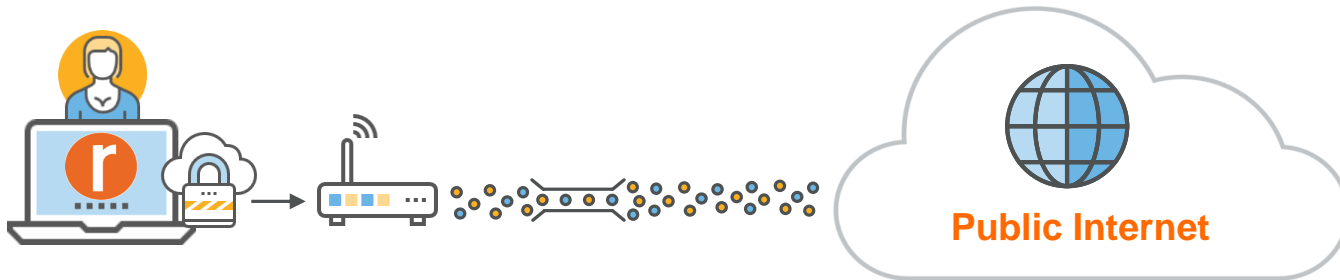
On-Prem, IaaS, SaaS



**We Support  
All Architectures**

# The Home Office/Couch User

## The Home Setup



NETFLIX



Google Classroom



Khan Academy

### Home WiFi

- Signal Strength, Interference
- Other Users (Netflix, Google Classroom)

### Modem

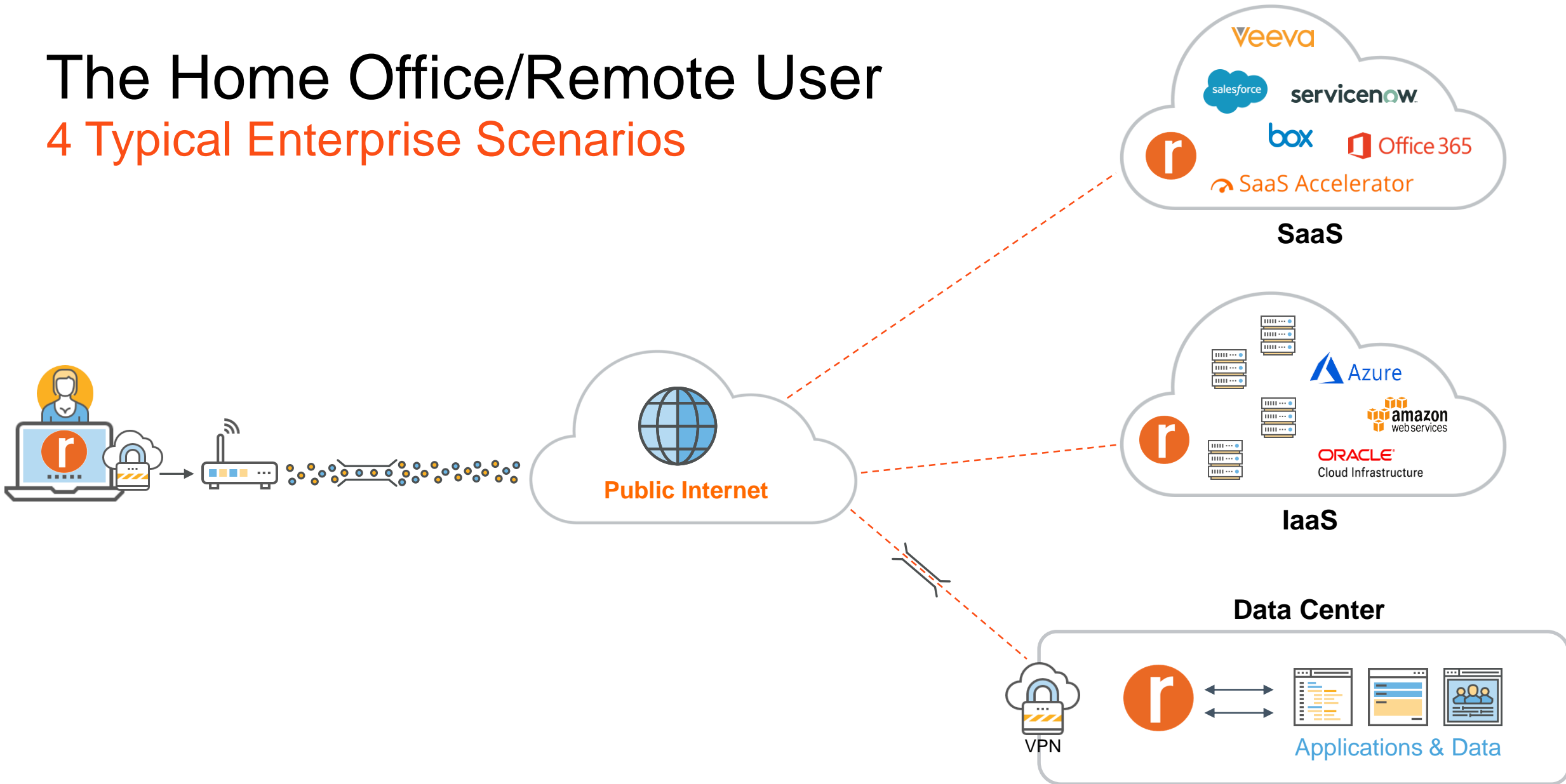
- Not enterprise grade (needs reboots)

### ISP

- May be oversubscribed locally or at peering points

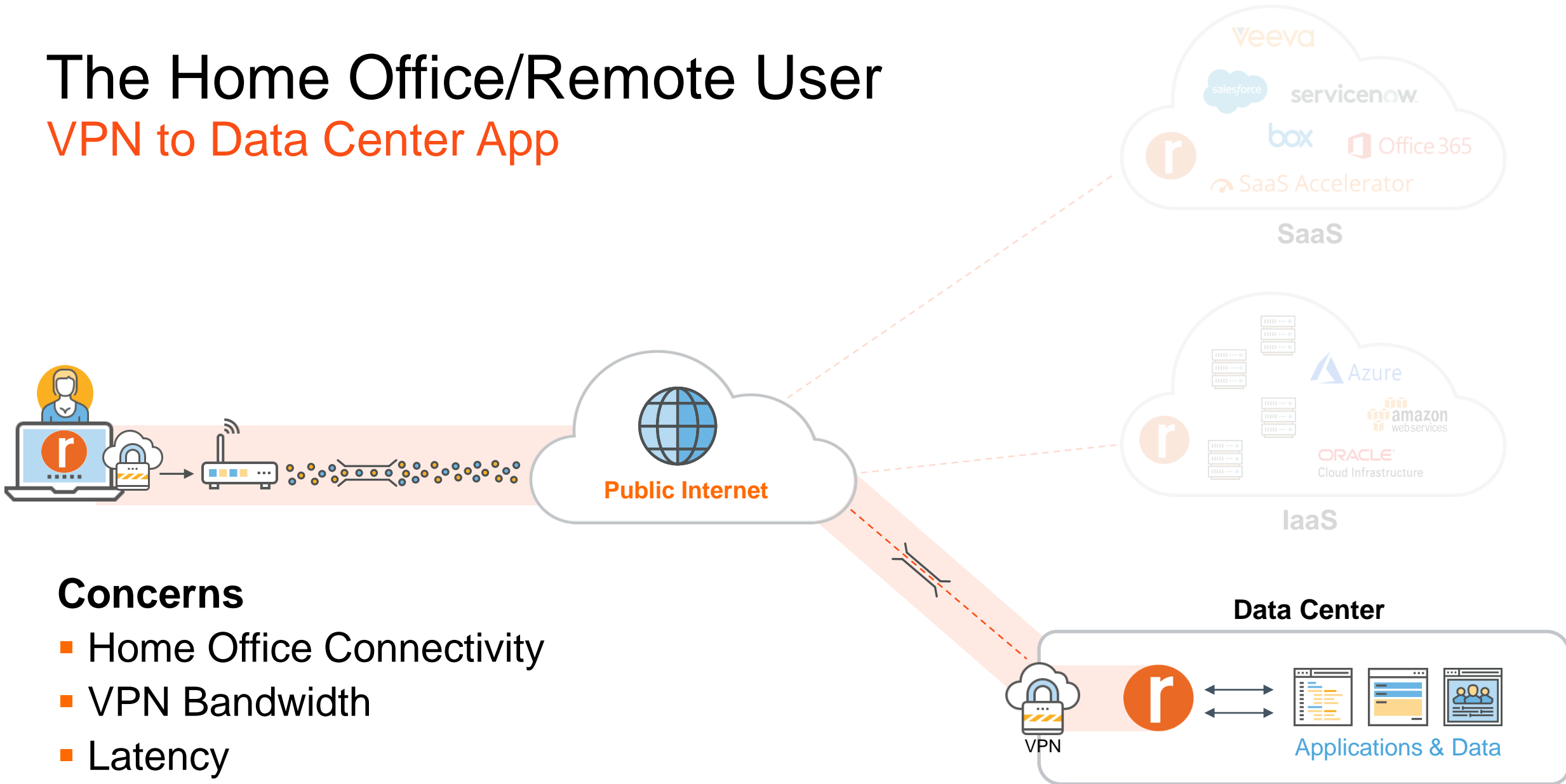
# The Home Office/Remote User

## 4 Typical Enterprise Scenarios



# The Home Office/Remote User

## VPN to Data Center App

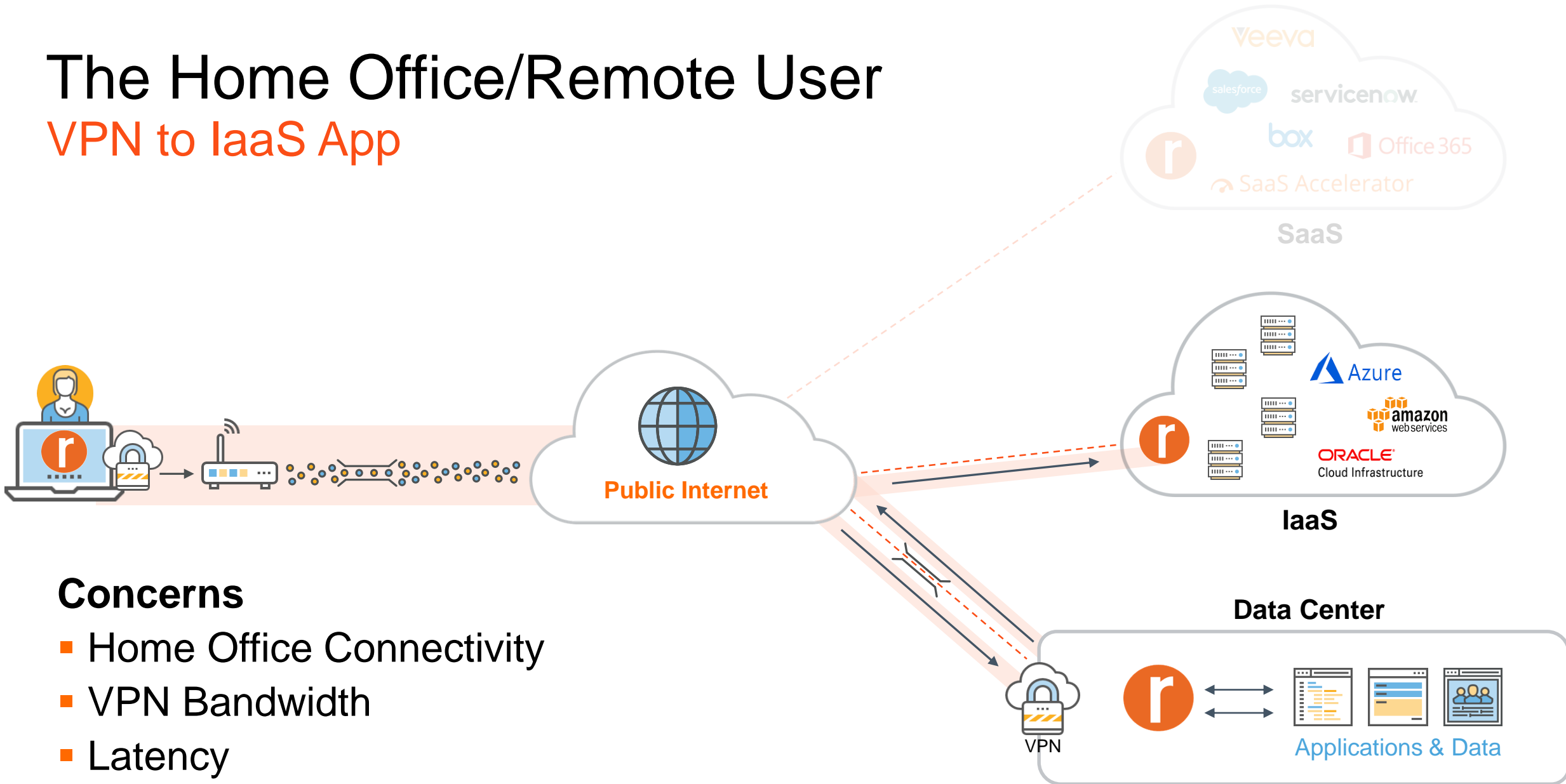


### Concerns

- Home Office Connectivity
- VPN Bandwidth
- Latency

# The Home Office/Remote User

## VPN to IaaS App



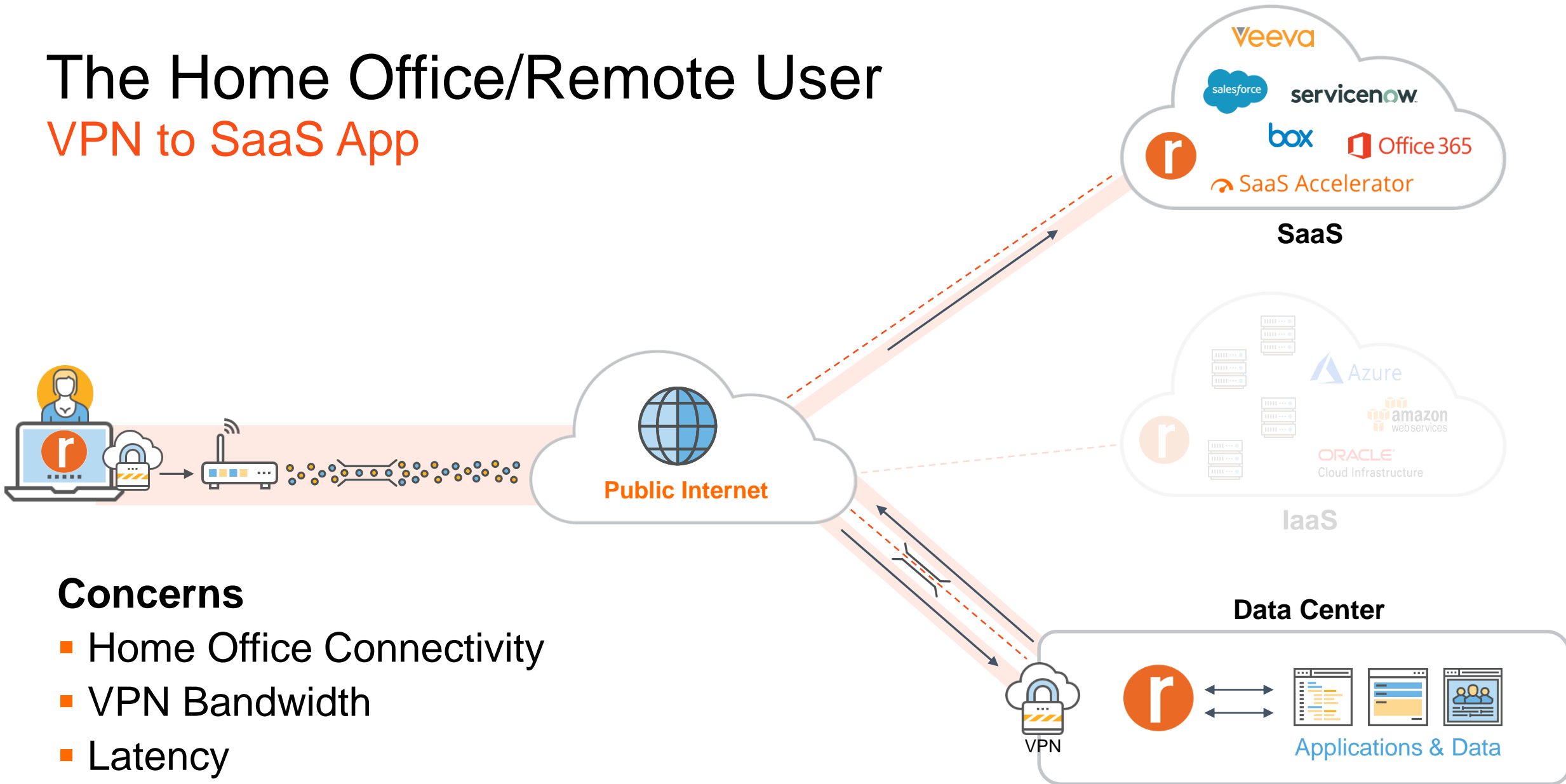
### Concerns

- Home Office Connectivity
- VPN Bandwidth
- Latency



# The Home Office/Remote User

## VPN to SaaS App

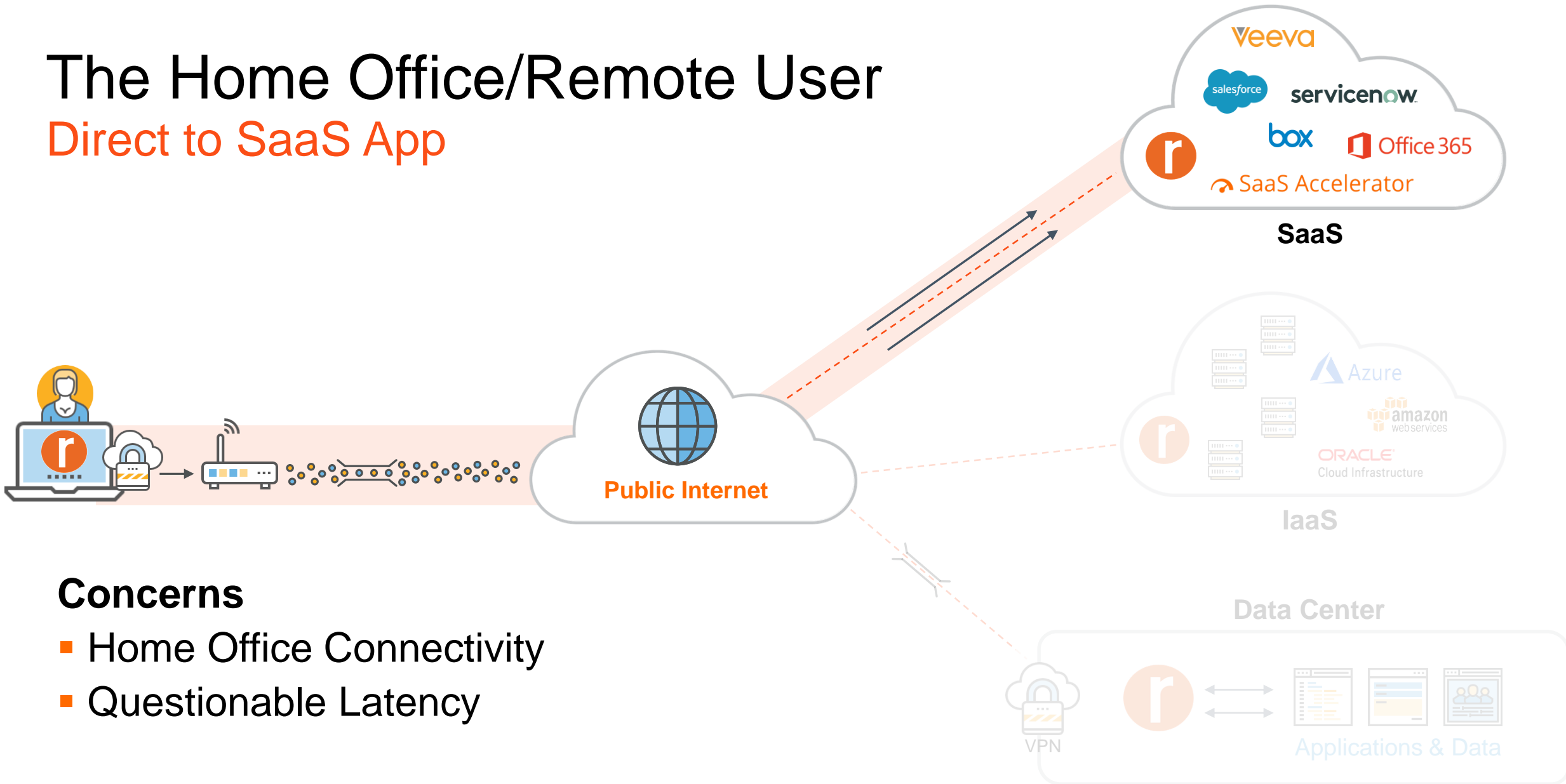


### Concerns

- Home Office Connectivity
- VPN Bandwidth
- Latency

# The Home Office/Remote User

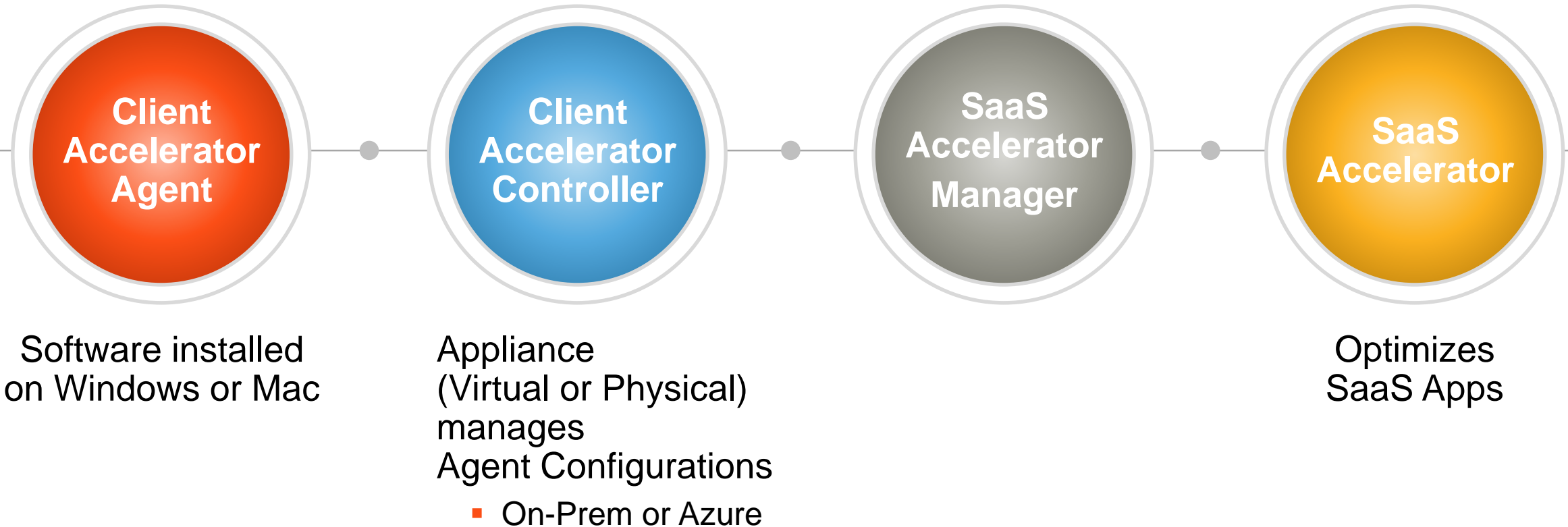
## Direct to SaaS App



### Concerns

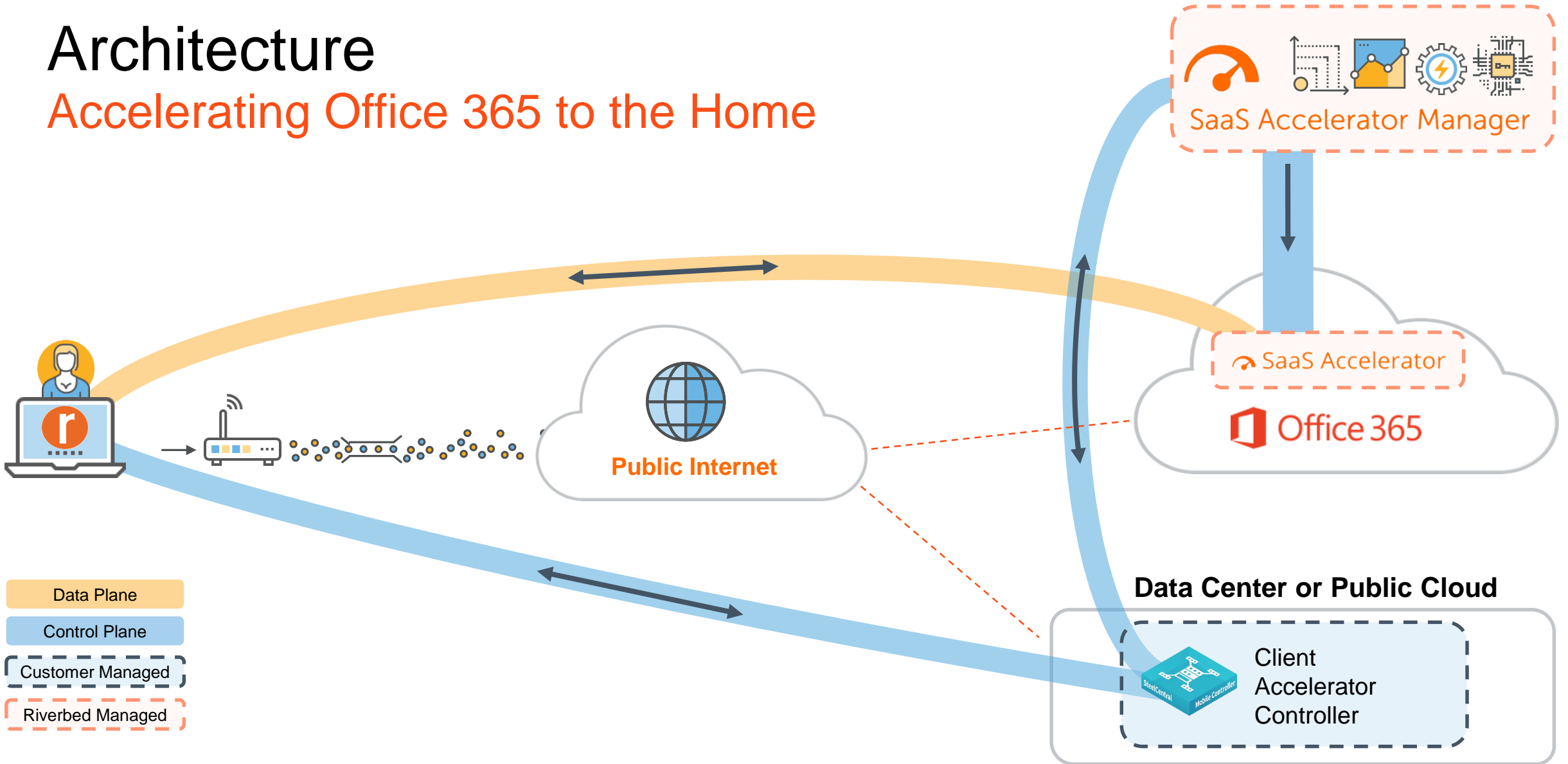
- Home Office Connectivity
- Questionable Latency

# Architecture: Enterprise SaaS apps



# Architecture

## Accelerating Office 365 to the Home



# Key Takeaways

- Performance is **Unpredictable** when Working from Home or outside the company's network
- Application **Performance** = Business **Productivity**
- Riverbed delivers **FAST, CONSISTENT, AVAILABLE** apps at home and on-the-go



# Resources

**Try Riverbed Client Accelerator  
for 90 days at \$0**

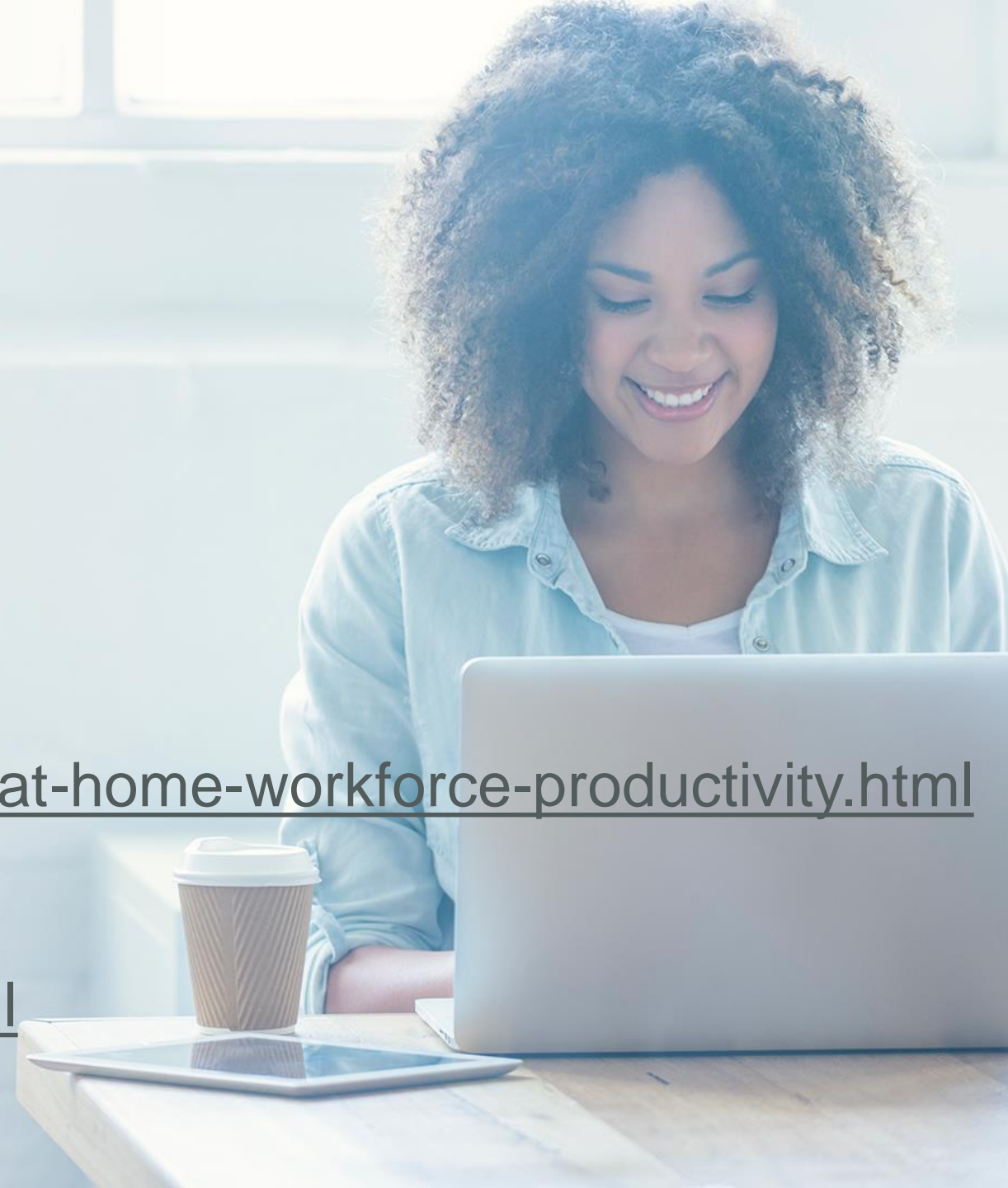
Register on [www.riverbed.com](http://www.riverbed.com)

**Zum Thema:**

<https://www.riverbed.com/solutions/at-home-workforce-productivity.html>

Riverbed Blog:

<https://www.riverbed.com/blogs.html>



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