



# How Remote Collaboration Can Help Your Design Firm Achieve Success

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# More About Curt ...



## Background and Experience

- Began working with AutoCAD in 1990
- Worked in the oil / gas and civil industries
- Content creator for multiple firms Autodesk, Leica Geosystems, and others; published numerous articles; former AUGI board member
- Currently the IT Manager in Texas, managing offices all over the state and in OK and LA
- Avid pet lover and gamer



# LAWN MOWING SIMULATOR



# LAWN MOWING SIMULATOR







**Before We Start ...**



**Why We're Here ...**

# Improve Productivity Through Remote Collaboration







# Collaboration

- Because that is what companies do ...
- This has always been a challenge for some companies
- What are the benefits of collaboration and why is it important?
  - Increased communication
  - More flexibility
  - Increased potential for learning
  - **Increased productivity**
  - **More engaged staff**











Photo by George Milton at Pexels.com



Photo by Anete Lusina at Pexels.com



Photo by Erin Li at Pexels.com



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# Hybrid Workplace

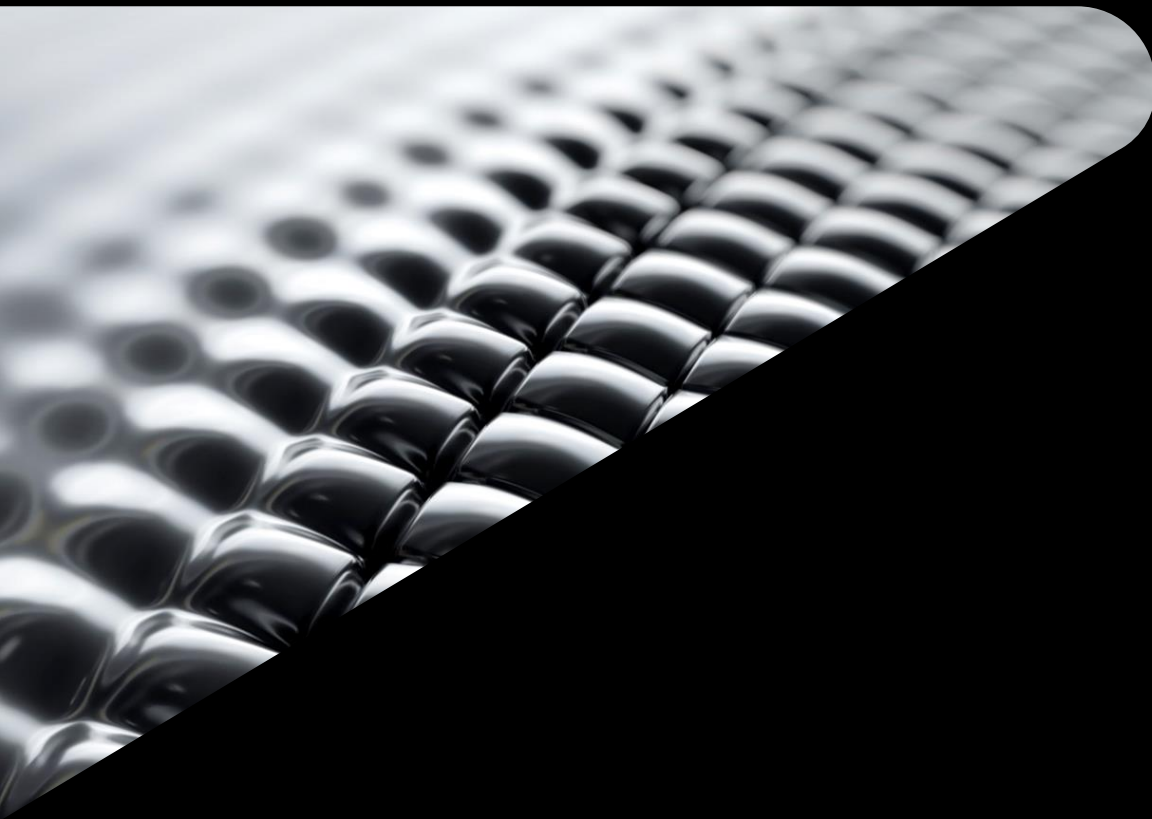








- **Secure Access**
- **Asset Availability**
- **Communication**

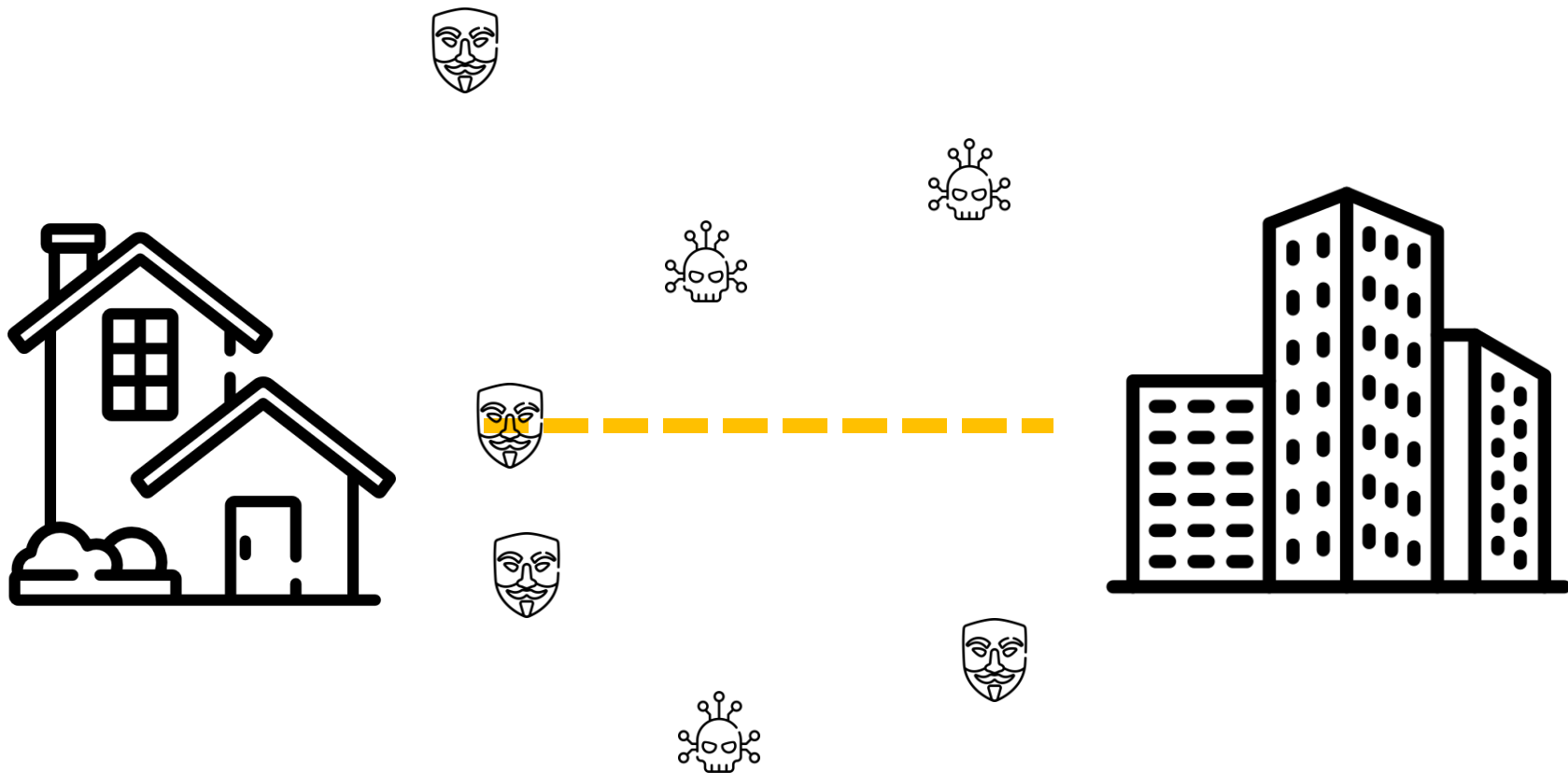


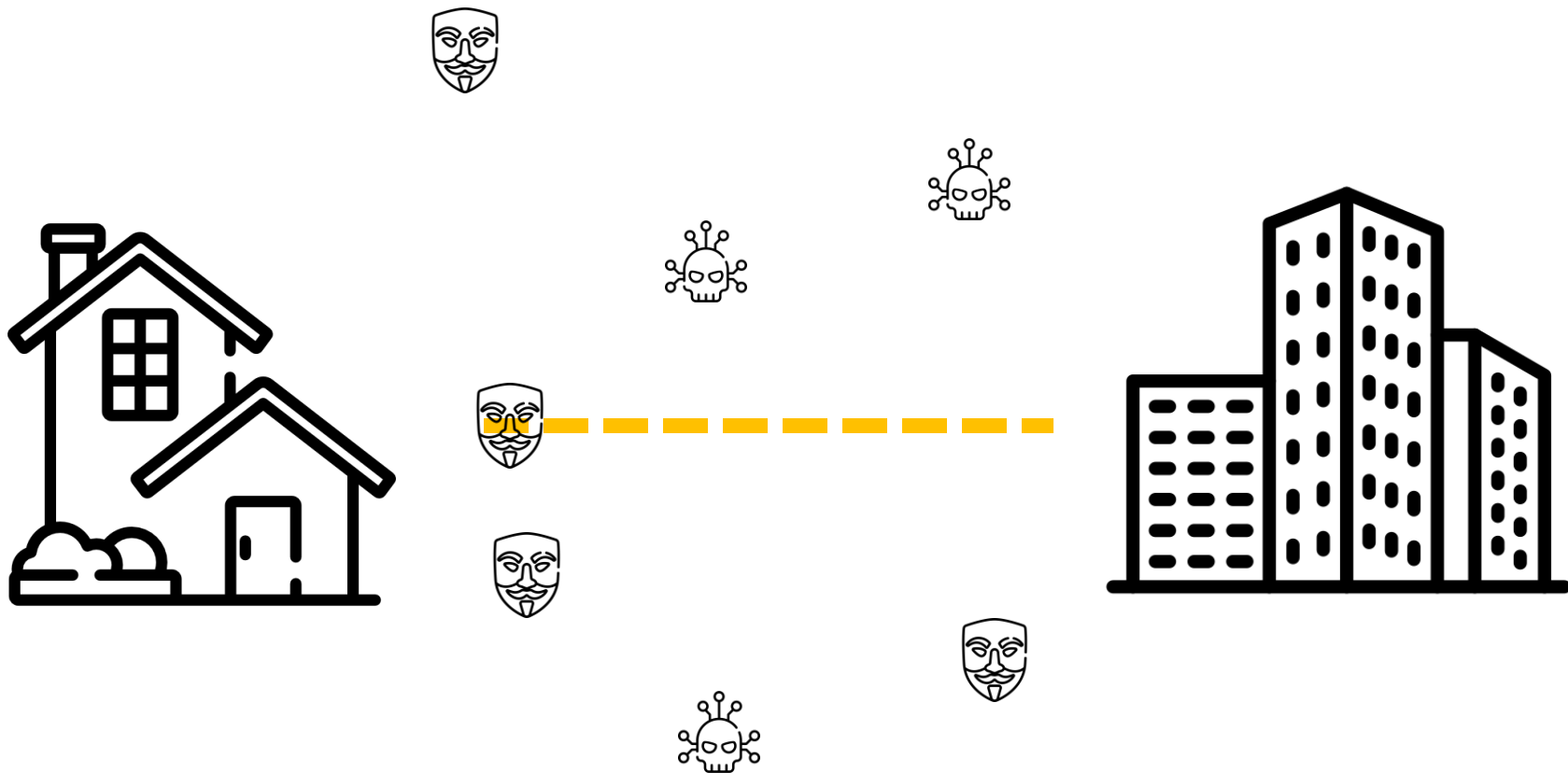
**Secure Access**











# Secure Access

- Absolute need to provide secure access between remote workers and offices
  - Prevent bad actors from accessing networks
  - Also prevents remote assets from being compromised
- Achieved by established a secured, encrypted connection between points
  - Observers have no way of intercepting or decrypting traffic
- Easily provided by two pieces of equipment
  - Secure access point
  - Office-based firewall



# Recommendations



## **SMBs & Branches**

### **SOHO / TZ Series Firewalls**

Enterprise-grade protection for your small to mid-size business or branch office.



## **Mid-Sized Enterprise**

### **NSa Series Firewalls**

Unrivalled threat prevention in a high-performance security platform.



## **Large Enterprise**

### **NSsp Series Firewalls**

Scalable security that leverages the power of cloud intelligence and designed for large distributed enterprises, data centers and service providers.

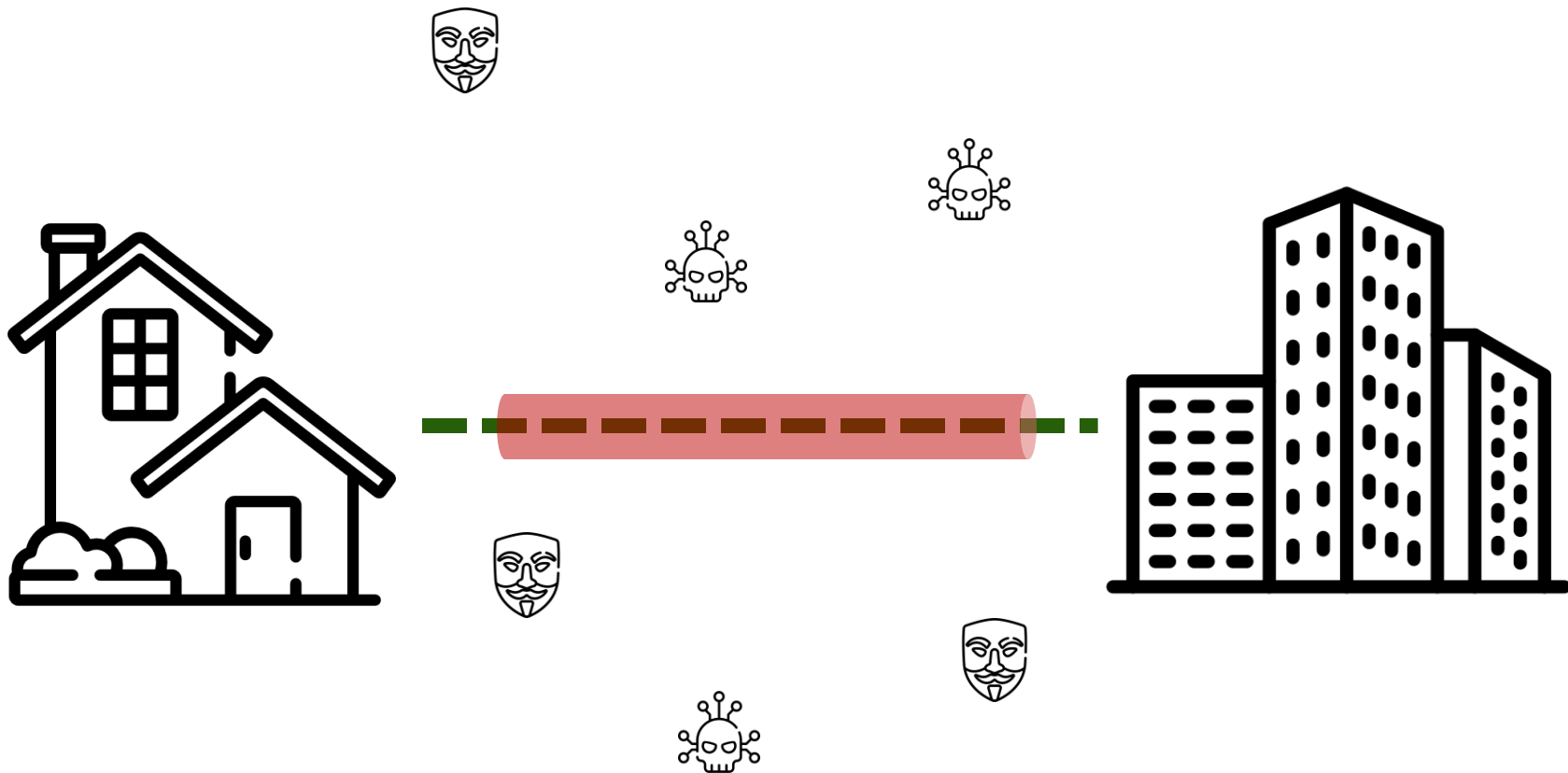


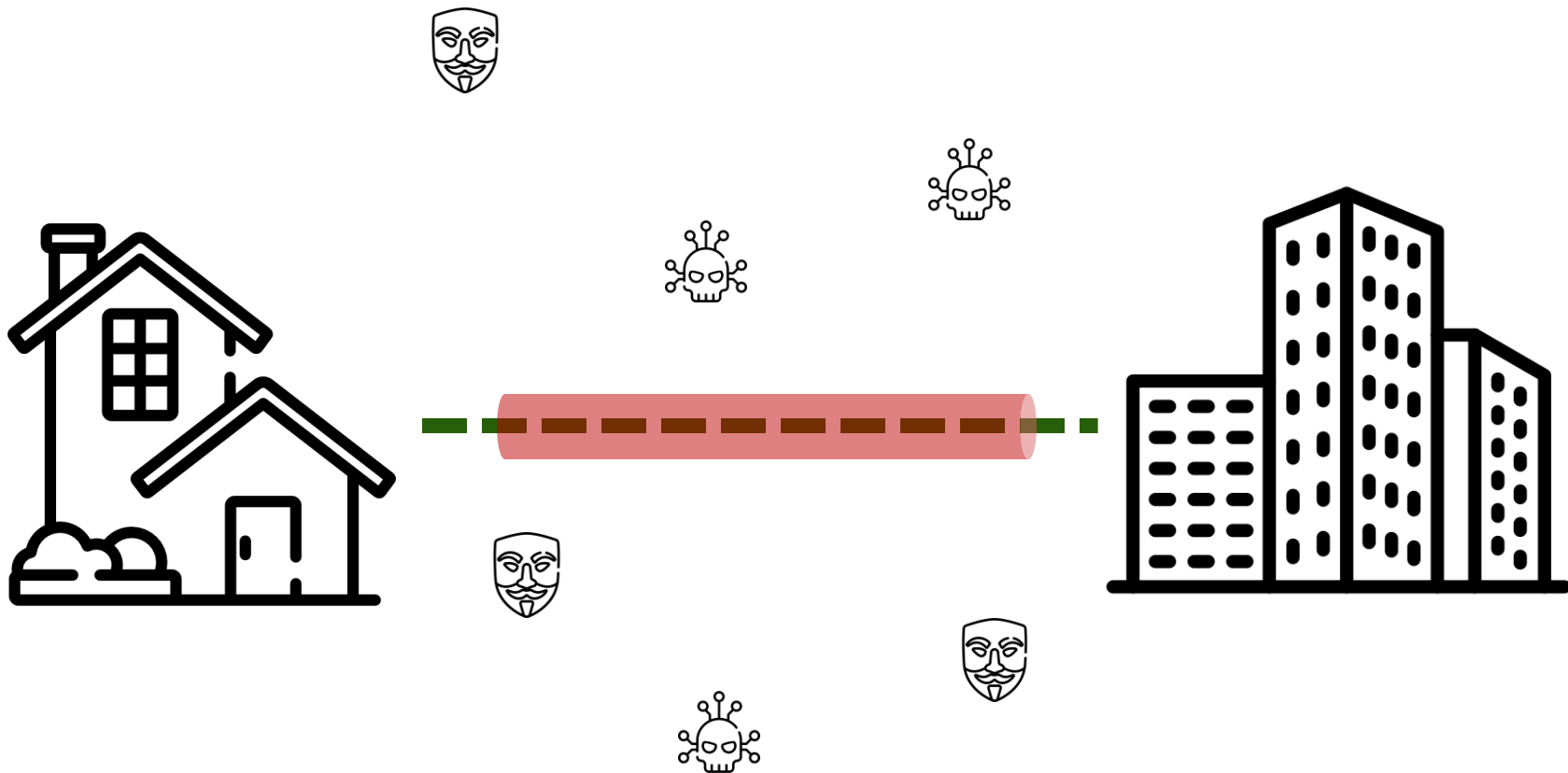
## **Virtual Firewalls**

### **NSv Series Firewalls**

A virtual firewall series that provides next-generation cloud security for hybrid and multi-cloud environments.

- Firewall at Corporate Office
  - NSA2650 Sonicwall
- Firewall at Satellite Offices
  - TZ600 Sonicwall
- Secure Mobile Access
  - SMA500 at Corporate Office
- All devices firewalls configured for High Availability









# **Asset Availability**





Dub,

ON  
RENN

PUNK-  
ÄKTSCHE  
OHNE  
ENDE!

Stoppt internationale

Seit Lu  
Wahlen  
Sturmmanz.  
Aus Santa  
engefangen,  
der MAS wur  
genommen.  
Die Polizei  
Nachdem R  
zeit se der Su  
deren Bürger  
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LIVE  
TOLOUSE LOW TRAX - BUFIMAN - R.  
GIRAFFI DOG - RVDS - INIT - MCR-T

NING

WARIN

# Why is asset access important?









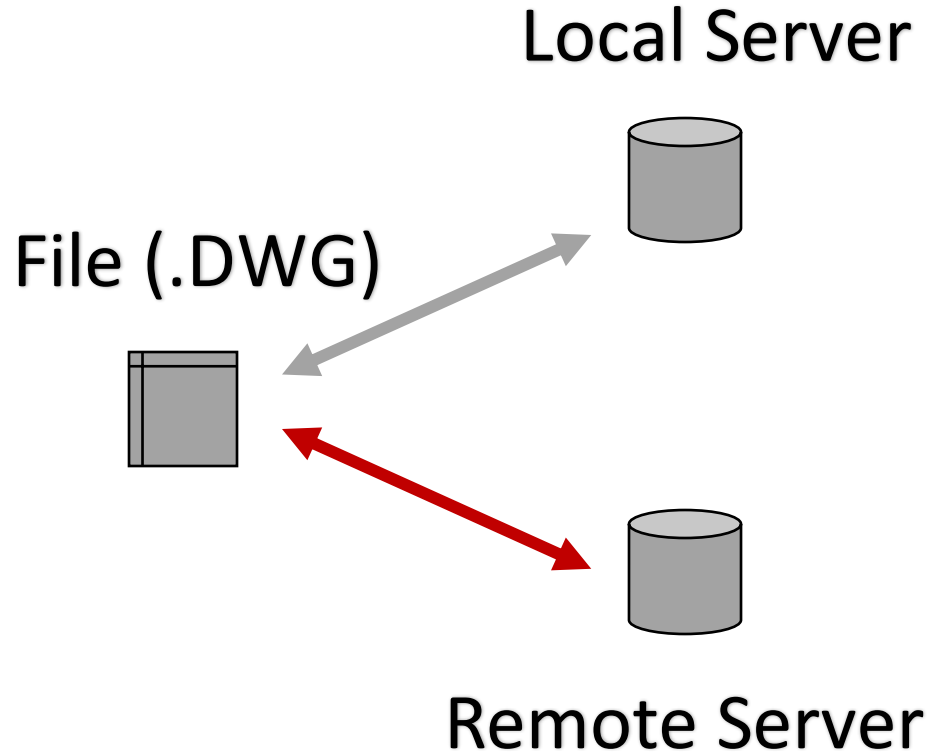
# Availability

- This problem existed long before Remote Work or the Hybrid Workplace
  - Plenty of SMBs already have multiple office locations
  - Already hybrid and didn't even know
- What are the challenges?
  - Assets (project data) siloed in various locations
  - Collaboration has too much overhead and risk
  - Our company cultures are slow to change
- What's the answer
  - Make all data available to everyone

File (.DWG)

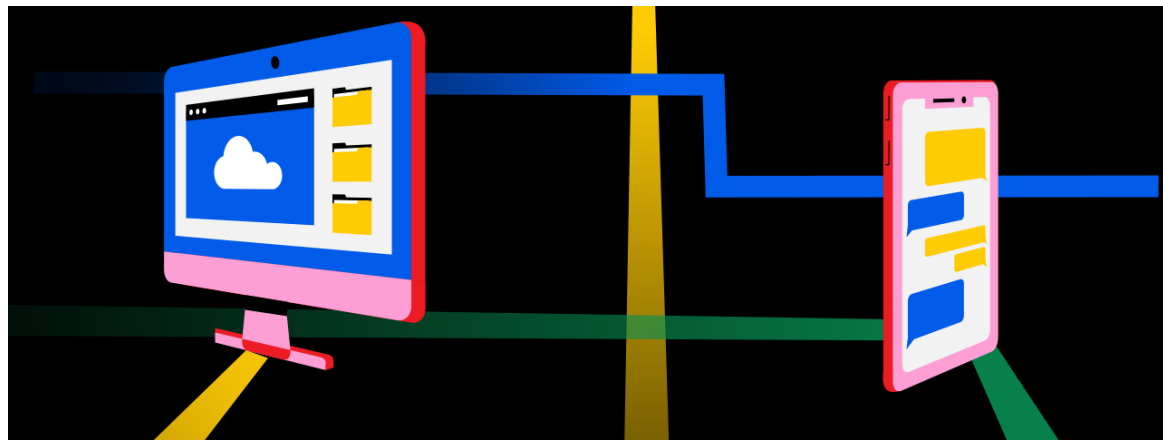
Local Server





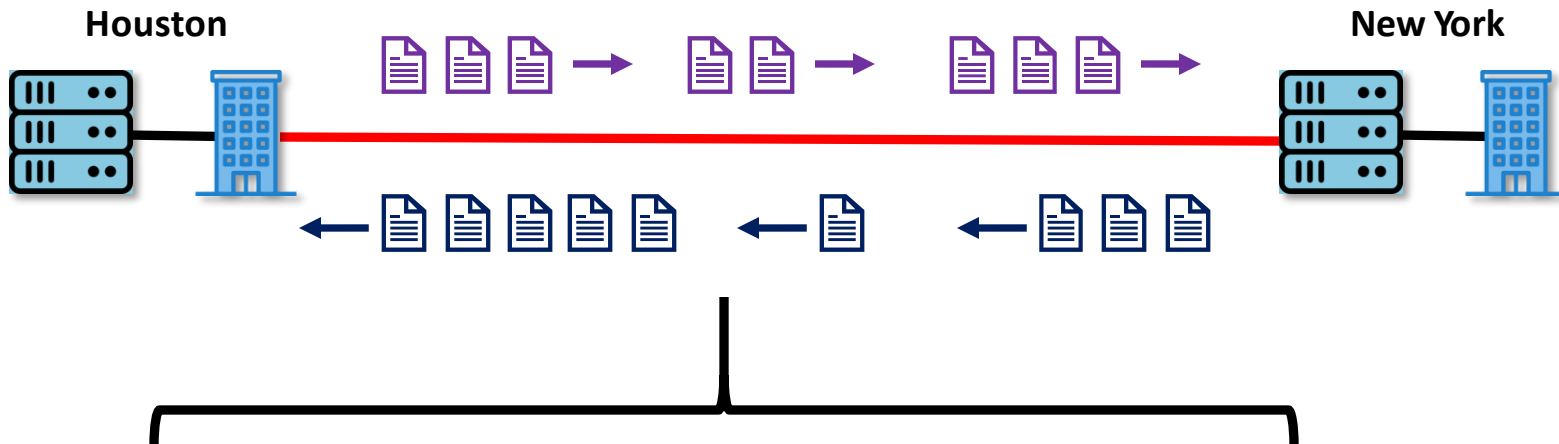


# Recommendations



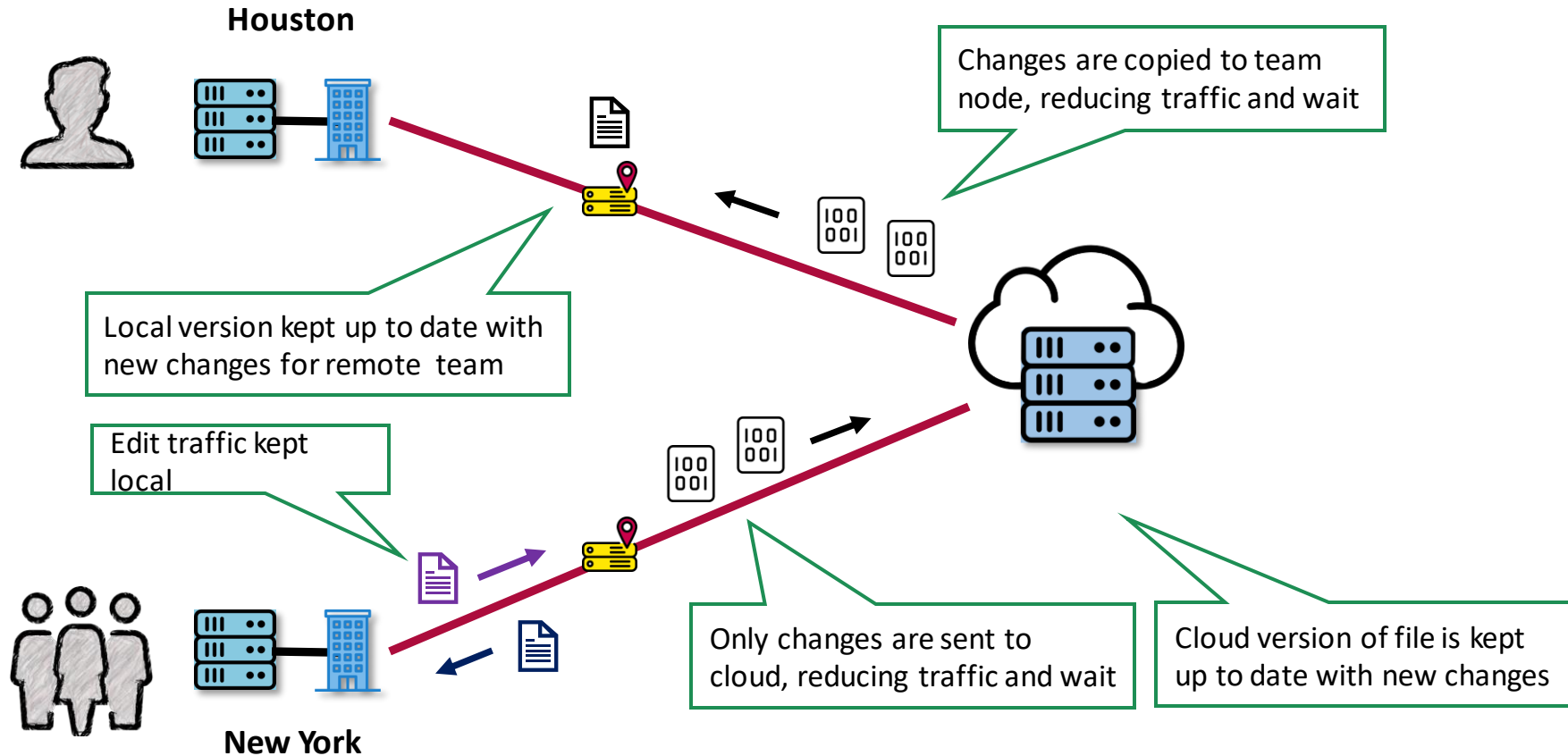
- Panzura CloudFS
- Collected all of our project data from 10 silos
- Using Azure as data repository
- Create a single source of truth for all project data for all staff
- Requires remote workers connect to corporate network
- Universal file locking

# The Reason for Slow Remote Collaboration

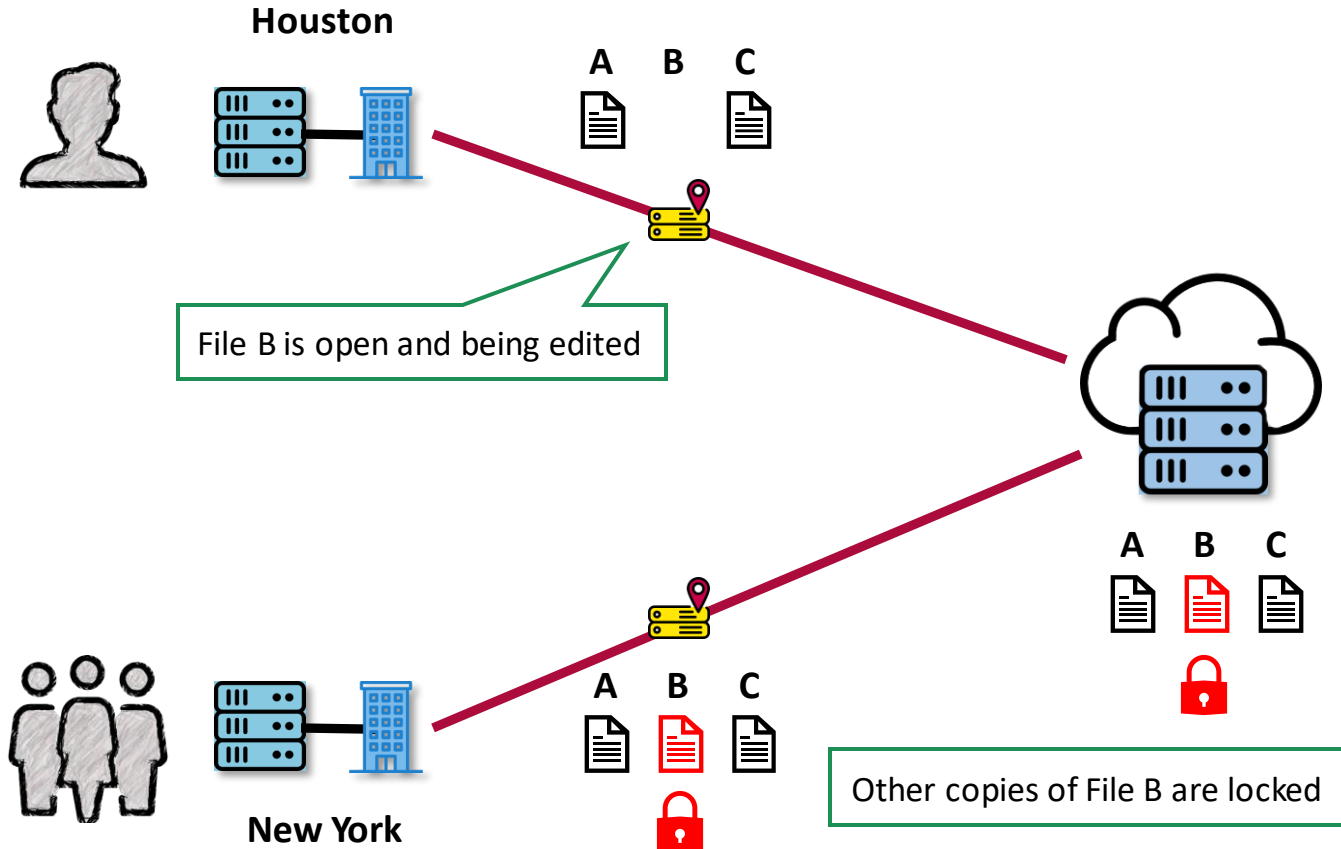


- File operations for each file have to travel over the network
- Speed for travel time is measure in milliseconds (typ. ~ 20ms)
- Each file has a huge number of operations
  - **15,000 operations x 20ms = 300,000ms = 5 minutes**
- True for every file opened and every file referenced or attached that remains on the remote server
- Operations continue for each file while being edited with latency building causing programs to “get stuck”

# Faster, Advanced Remote Collaboration

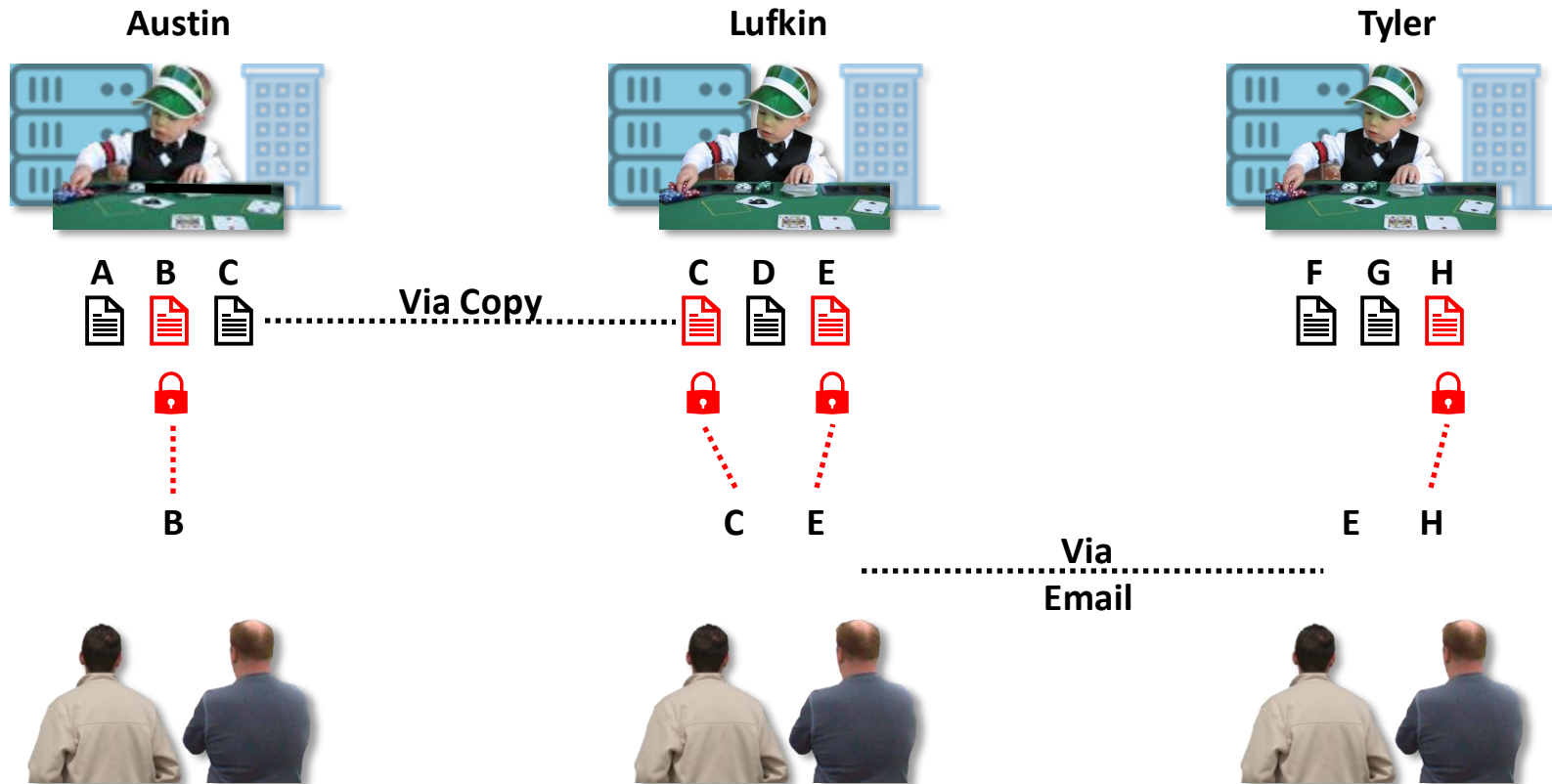


# Automatic Global File Locking





# What the Deal is Now



# What the Deal Will Be

Cloud  
Projects



A 

B 

C 

D 

E 

F 

G 

H 

I 

J 



View  
Only

No-Lock

B

C

E

E

H

J



Austin



Lufkin

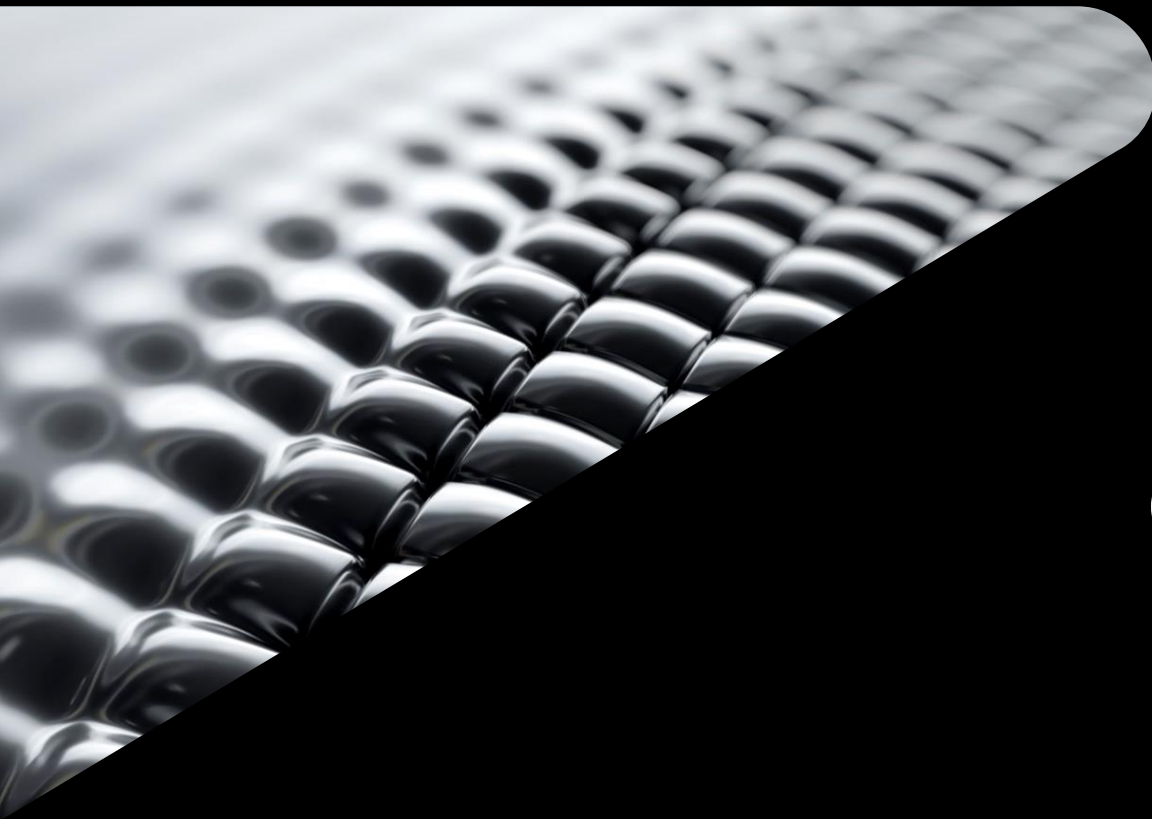


Tyler



WFH





# Communication



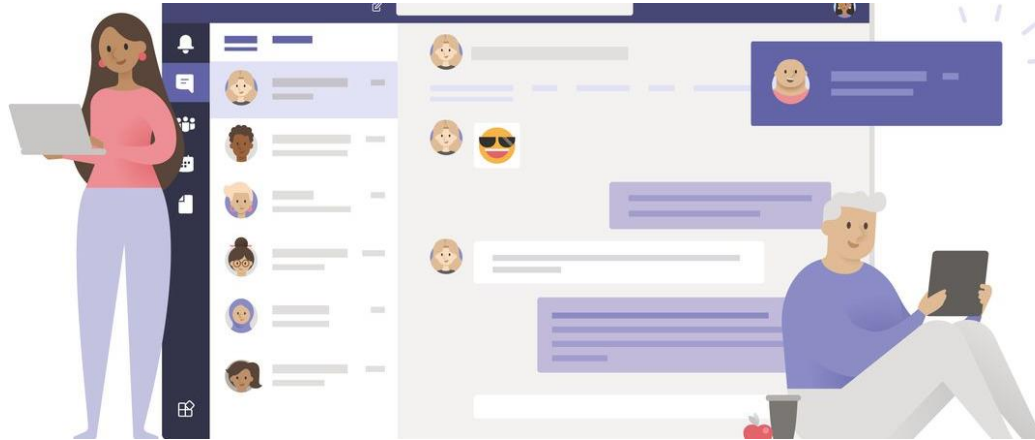




# Communication

- More than a technology problem
  - The fluidity of communication depends on the culture of an organization
  - Culture is not guaranteed throughout an organization
- Effort to communicate needs escalate
  - More effort as remote work percentages increase
  - Realize that communications are asynchronous
- Numerous solutions for communication
  - The choices are almost endless
  - All price points from free to very expensive

# Recommendations



- Microsoft Teams
- Commonplace for MS Office users
- Included as an add-on or with most O365 licenses
- Available VoIP optional license

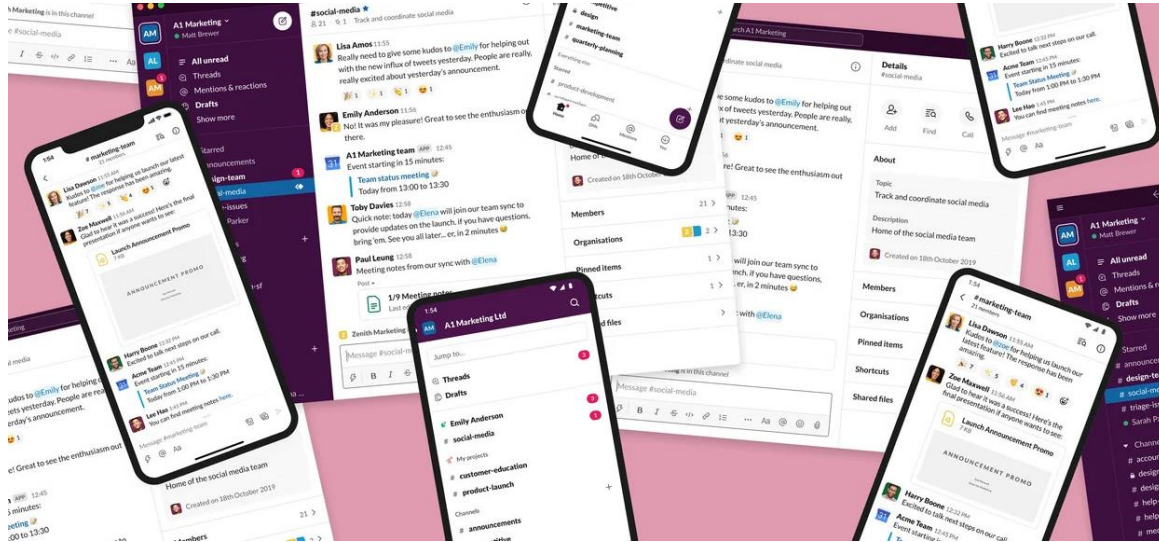


# Recommendations



- 8x8 Voice Over IP
- No special service connections
- Multiple platforms
  - Traditional desk phones
  - Computer app “soft phone”
  - Android and iOS apps

# Recommendations



- Slack
- Very widely used
- Free and pay tiers
  - Free works great
- Perfect for out-of-channel communication
  - Blow that steam off

**A Funny Thing  
Happened to Me on the  
way to AU 2022 ...**

**what you mean..**



**i has been hacked!**





**C**onnect

Remember that your job isn't done when with setting up a remote workplace environment.

**U**sers ...

You must treat its security the same as any other aspect of network security.

**R**emember

**T**hreats ...

# Where are we now?







# We're Equipped to:

- Securely connect to our office networks
  - Safe from bad actors
- Improved asset access
  - Access between offices
  - Access from remote locations
  - Universal file locking
  - Eliminated duplicate work
  - Exponentially improved collaboration

# We're Equipped to:

- Improved communications
  - Able to make and take calls from anywhere
  - Using common, reliable applications
  - Establishing secondary channel if needed
  - We realize staying connected takes work













