



*with The Academy of
Television Arts & Sciences
S&T Subgroup*

CHUCK PARKER - CEO, SOHONET



500+

Media &
Entertainment
customers globally

25+

Years serving the
Media &
Entertainment
Industry

EMMY

Awarded 2020
Engineering Emmy
for advancing remote
collaboration

55

Production studio
partners across the
UK, US, Canada and
Australia

How has COVID impacted our industry trends?

Key pre-existing trends

1. **Production of episodic content will continue to surge**, driven by major OTT streaming providers
2. **Increased VFX spend** as a result of competition for high-quality content
3. **“Cloud-first workflows”** will drive move to public cloud resources
4. **Revolutionary distributed workforce** enabled by improved connectivity and affordable tools
5. **Deconstruction of the employer relationship** in Post Production & VFX as industry moves towards freelance labour
6. **Increased file transfer requirements** linked to increase in smaller productions and freelance individuals
7. **Death of Enterprise software** as teams become more self-reliant and move away from corporate admin models
8. **Advertising spend will continue grow** despite upheaval in the industry
9. **Virtual production will accelerate**, reducing number of locations, travel costs and move balance of practical vs. classic VFX.

Covid Impact

1. Production continues to accelerate as streaming services now only major distribution option.
2. VFX trend continues, but with remote (VDI) and cloud (virtual workstation) workflows
3. Cloud adoption driven by virtual workstation requirements, but will not accelerate until “critical review” output and cost issues solved.
4. Increased networking requirements for WFH - 2 home connections or need for “business grade” connectivity.
5. Freelance labor only accelerates as the industry that was on hiatus recovers.
6. The need to share deliverables with tools that work from home becomes critical.
8. Ad spend accelerates as the economy returns to its former velocity.
9. Expect rapid acceleration driven by COVID conditions and an expectation of cost reductions in travel

Our new reality...working remote

Pre COVID less than

5%

of staff worked
remotely

There are currently

800k

freelancers powering
the TV, film & ad
industry's production &
post

By 2025 there will be

182

million freelancers in
the EU & US

For the next

12-18

Months, we'll be
working in a 'hybrid'
state

Stream in real-time from anywhere



100%

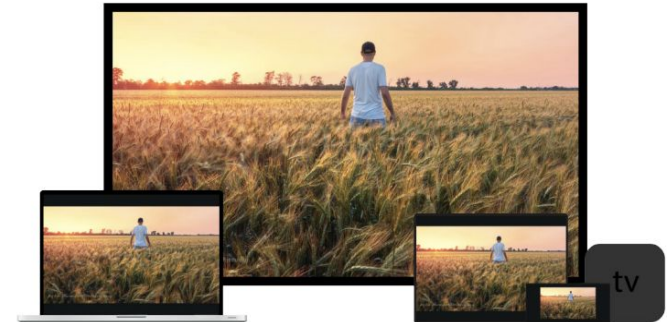
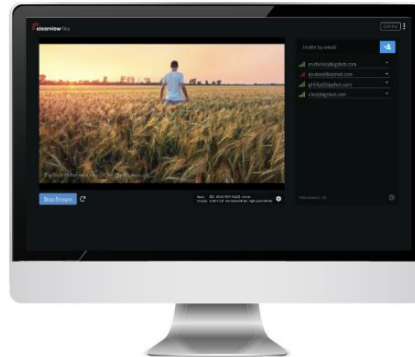
major Hollywood Studios
use Flex

150,000+

Hours spent reviewing using
Flex in 2020

ClearView Flex enables an 'over the shoulder' live viewing experience for creatives who can't be in the same room at the same time.

Providing a sub-100ms live stream to any device, with minimal bandwidth requirements, you can work with up to 30 viewers for a live review of creative work, all with rock-solid frame rate, colour and audio accuracy



Host remote, high quality, multi-point review sessions in real-time



24 hours

Saved for every review session

\$100,000s

+ Saved on travel costs

ClearView Pivot gives you the quality of review you would expect in a grading suite or screening room, but remotely.

Review in real-time with your collaborators across the globe and stream colour and frame-accurate footage to multiple parties in 4K HDR with 12-bit colour depth and 4:4:4 chroma sampling — all at the click of a button.



150,000+

Hours spent reviewing using Flex in 2020



800k

freelancers powering the TV, film & ad industry's production & post right now



For the next 12-18

Months, we'll be working in a 'hybrid' state



sohonet



Pre Covid remote review mainly used for adhoc scenarios when key players couldn't make it to the review session/ or artist working remotely. A "nice to have"

Remote techs now embedded into workflow. Teams know how to use tools like ClearView. The client accepts and likes it

60,000+

Flex sessions in 2020

Pre Covid, ClearView was predominantly used for final review or review sessions with clients towards end of review process

Now CV used at each stage of the workflow: Streaming dailies from, 1st cut reviews, team VFX reviews -- hours of footage going through Flex

39.5% Increase in avg streaming session length

Covid-19 Impact of Remote Collaboration &



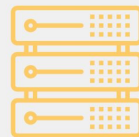
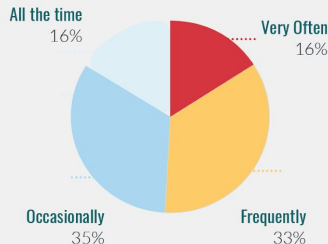
3x

Increase in avg number viewers per session



Increased investment in VFX for episodic > VFX typically have much larger teams with lots of artist involve in review

Frequency of working remotely Pre Covid



712%

Increase in avg # presenters per month

More and more we see facilities housing a Pivot/Flexbox in their machine room that will be accessed by multiple editors throughout the day virtually

As productions continue to return at scale, we expect the volume of remote workflows to increase by another 50-75%.

Once the economics of cloud reach parity with on premises capex solutions (18-30 months) and key industry players like Avid and BlackMagic solve the "critical review output" challenge with cloud egress, we expect another step function shift in volume of remote workflows.

Stats refer to ClearView Flex
* Freelancing in some capacity
Sources: Gitlab, (Stastica), Visual Capitalist

How are our customers using ClearView



Off-set creative participation in production

Cross-team VFX review and finalising

Remote editing with gear in the office

Remote colour grading

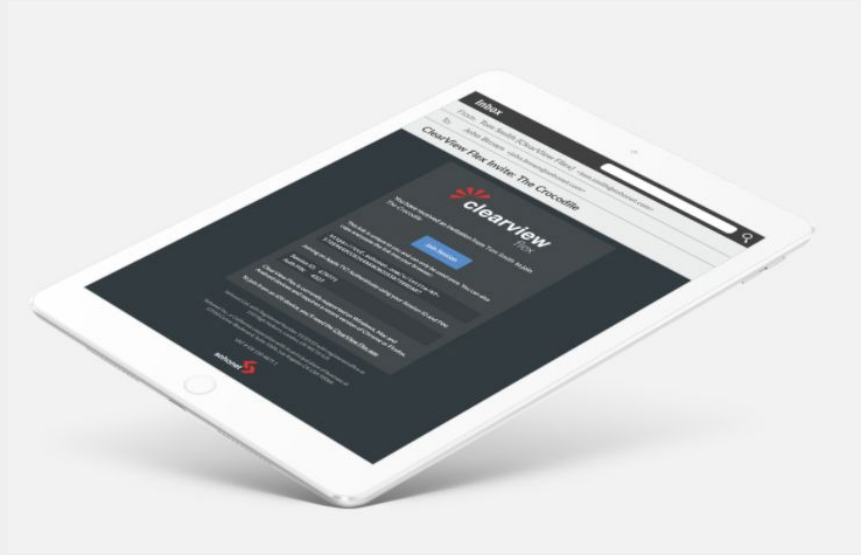
Remote sound production

Remote creative/exec real-time review

Remote team/client review and approval

Remote finishing and screening

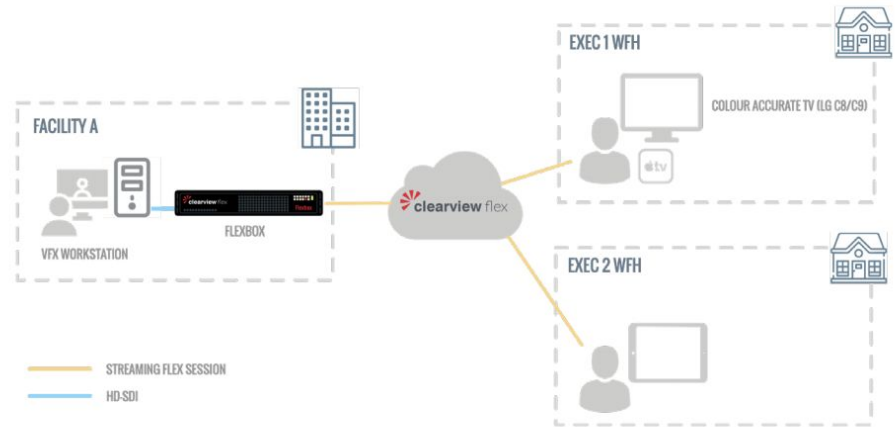
Safe in-person collaboration and review



Remote creative execs w/ 'real-time' review



- Creative execs have big hand in guiding the output of the creative process
- Keep execs & creatives aligned
- Execs have the same high fidelity requirements for colour/video quality as those editing, colouring, and creating



Case Study Examples



TV / episodic production. Typical current deployment is 2-5 Flex units per production:

- 1 on-set, moving to finishing when shooting wraps
- 1-4 with editorial
- 1 in VFX

Remote audio. 5.1 audio deployment allows for “low touch” deployment of audio reviews with AppleTV in creative / executive homes.

- Install AppleTV
- Download free ClearView app
- Join with Session ID and PIN

Finishing review. Remote finishing in 4K HDR resulted in a Pivot / Pivot Lite deployment

- 1 Pivot at CO3
- 10 Pivot Lites in the homes of creatives and executives, 5 of which were set in place for 13 weeks, 5 of which moved every 2 weeks to different episode directors
- Combined with Flex for further “light touch” viewers

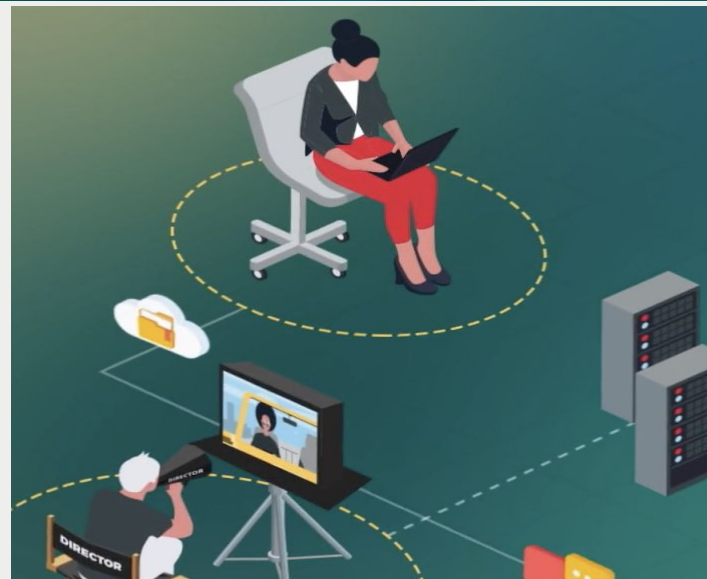
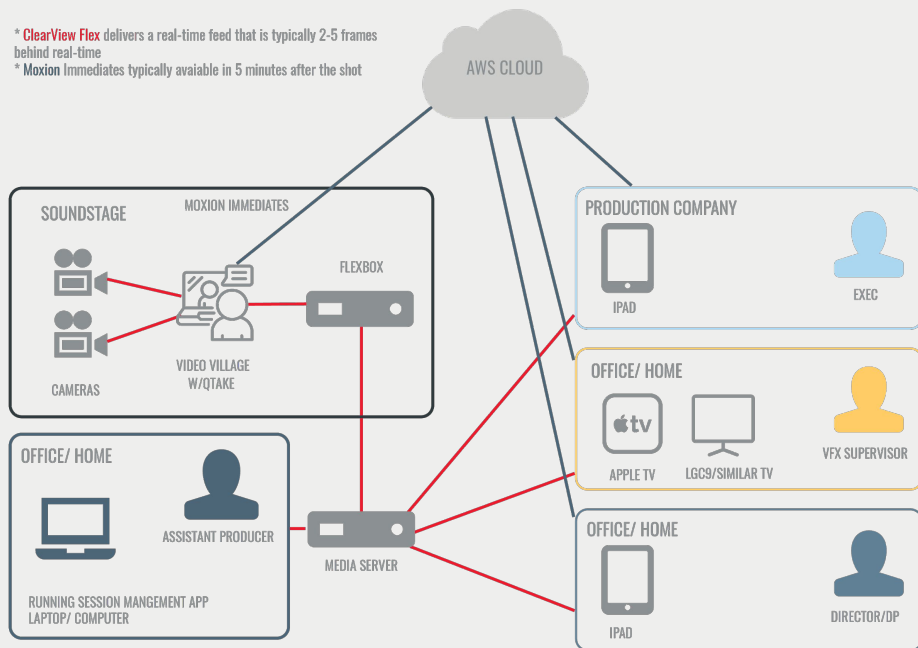
Productions use Flex to keep on/ off set creatives aligned



Provide your creatives & crew with tools to review footage, add mark-ups and make key creative decisions as a team, either in real-time or in their own time.

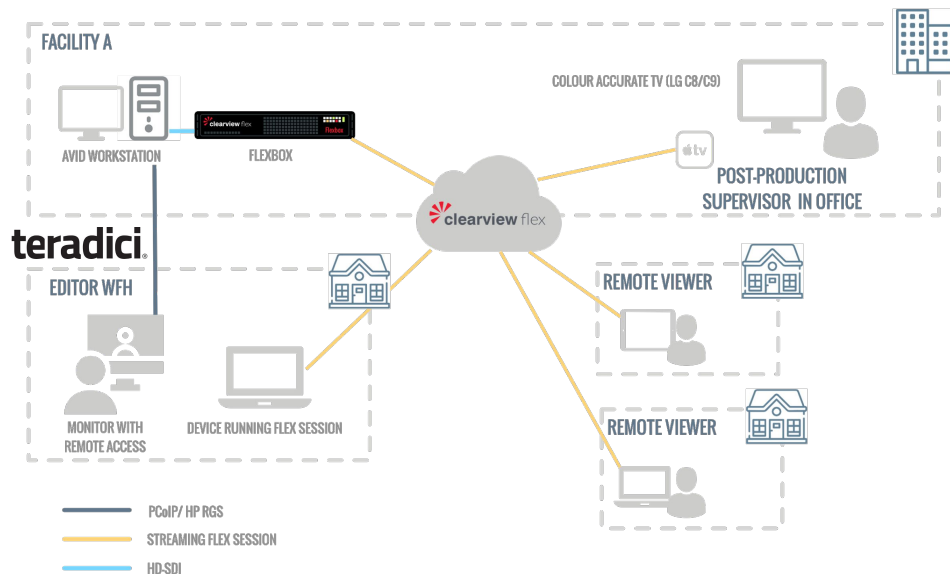
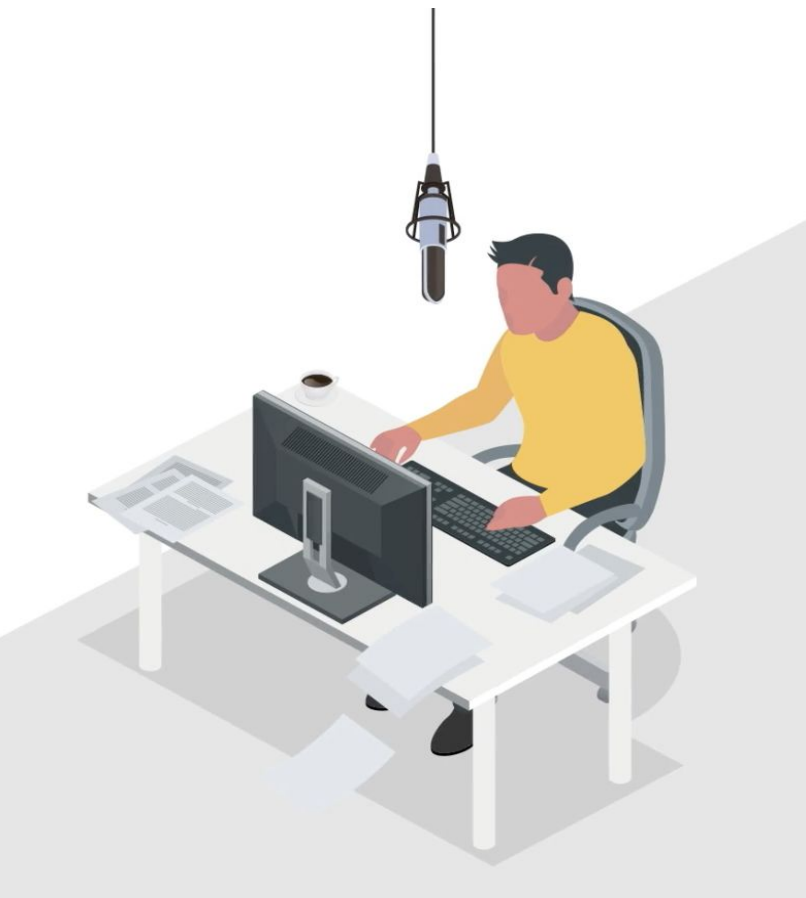
* ClearView Flex delivers a real-time feed that is typically 2-5 frames behind real-time

* Moxion Immediates typically available in 5 minutes after the shot

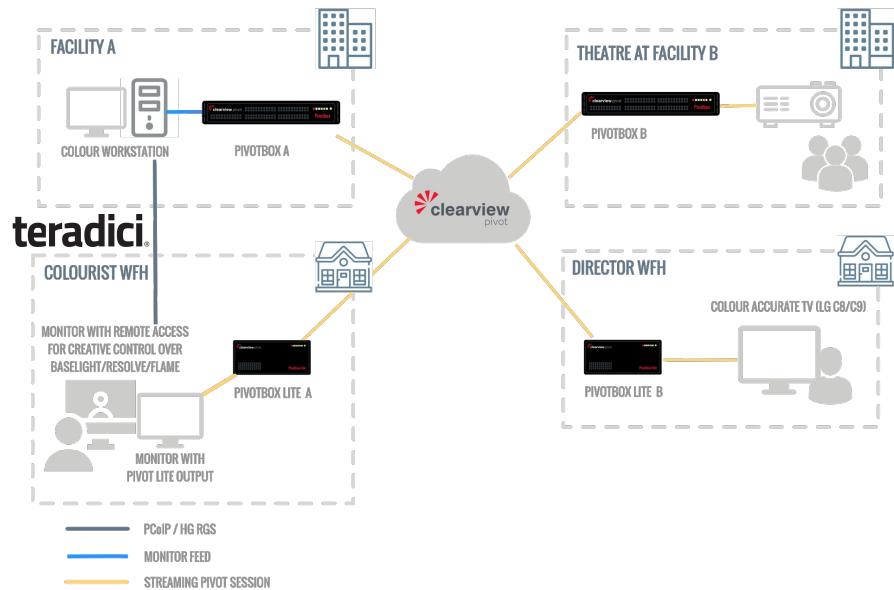


- Limited crew size on-set
- Tight deadlines,
- Multiple split units
- Increase off-lot locations
- Post happening in parallel

Remote Editing from the home office with Virtual desktop infrastructure (i.e. the gear is on-lot)

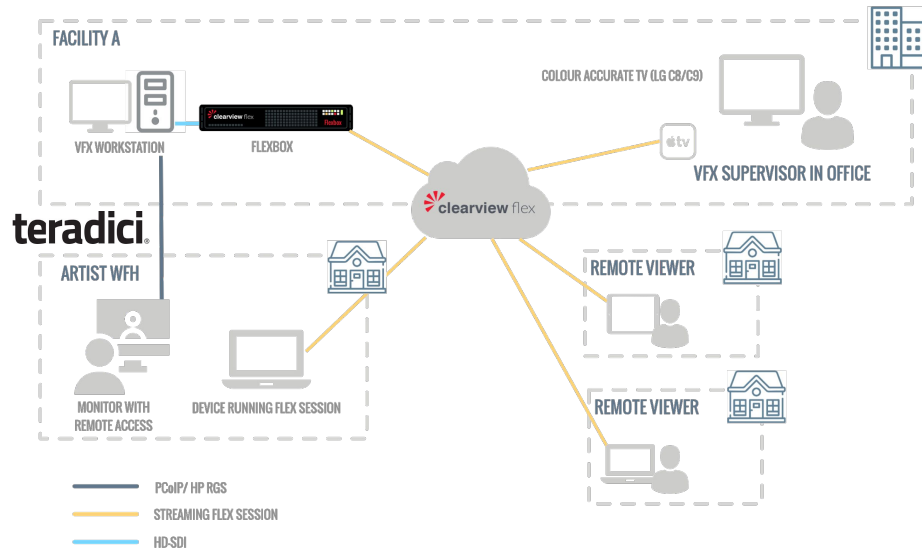


Colourist working from home, w/ remote-controlled workstation & ClearView Pivot Lite



2K workflows can be conducted at extremely high quality (4:4:4 12-bit) and **4K workflows** can also be conducted at **critical review output** (4:2:2 10-bit), the bandwidth required to facilitate this workflow is 100-200 Mbps down to the home.

Over the shoulder remote VFX shot review



teradici.



- Require the best possible quality output
- Bandwidth limitations for high quality review
- VFX artists often working on one small piece of a larger puzzle in large distributed teams.
- Greater number needing to review/ collaborate


Remote sound production: challenges



Once you receive initial feedback, you can then perform real-time reviews with collaborators/clients remotely using ClearView Flex.

Flex combines high-quality surround sound with the visual action for a perfectly synchronised real-time audio-visual experience.

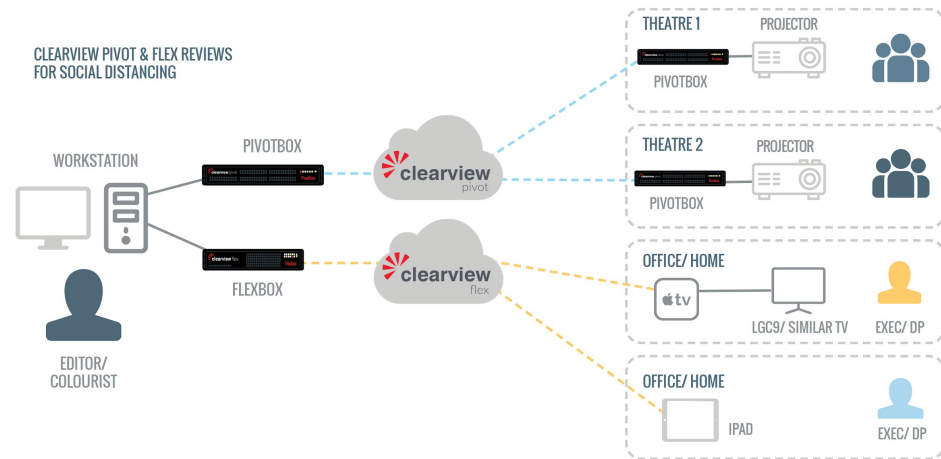
If a higher-spec required, ClearView Pivot/ Lite carries up to 16-channels of audio, allowing support for 5.1 and 7.1 setups

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- An illustration of a person with dark hair, wearing a yellow long-sleeved shirt, sitting in a grey office chair at a white desk. They are looking at a computer monitor. A professional microphone is suspended from the ceiling by a boom arm. A small white coffee cup sits on the desk next to the monitor. The background is a simple grey and white gradient.
- Working remotely in the audio field is not a new phenomenon
 - Composers/ mixers etc often juggling multiple projects
 - ADR happens when actors are usually onto next project
 - While on location, a Director may want to discuss creative sound elements & conduct spotting sessions for a project with teams remotely.

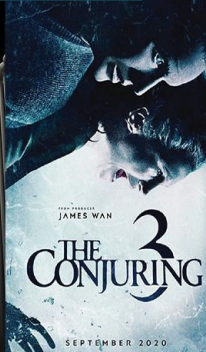
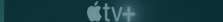
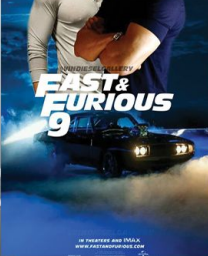
Remote finishing & screening (aka the “remote DI”)



- Process involves multiple parties (director, cinematographer, post and VFX supervisors, colourist, editor, exec producers and other creative execs from the distribution studio.
- But the largest of studio theatres can only support a handful of viewers with appropriate social distancing
- With Pivot 2/3 different teams of creatives can watch the content from separate screening rooms across campus, around town or even in different countries



Incredible customers working
across some amazing content





Questions?

www.sohonet.com