

SESSION 2

13Cloud, 11-11

Real World Cloud Experience

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Session Focus	Practical experiences moving Chapter 13 office infrastructure from local servers toward hosted/cloud environments, including QC Networks/13Cloud and 11:11.
Primary Drivers	Hardware refresh costs, VMware/licensing costs, backup and disaster recovery, power outages, support coverage, office moves, and reducing dependence on local server-room infrastructure.
Operational Theme	Cloud hosting can reduce local infrastructure burden, but internet connectivity, migration planning, application behavior, support responsiveness, authentication, bandwidth, and user workstation design remain critical.

1. Why These Offices Considered the Cloud

The discussion began with the practical decision that must come first: determine which cloud model/provider fits the office. The presenters described cloud adoption as an operational and financial decision rather than simply a technology upgrade.

- **Existing provider familiarity mattered.** One office was already using QC Networks for backup, making conversion easier because the provider could take the existing backup environment and bring it online.
- **Chapter 13 experience was viewed as valuable.** The presenters emphasized the benefit of a provider familiar with Chapter 13 software and workflows, particularly if the office's primary IT person becomes unavailable.
- **VMware cost was a major pressure point.** The session repeatedly referenced rising or undesirable VMware-related costs and the desire to avoid maintaining expensive virtualization licensing locally.
- **Hardware refresh costs were another driver.** Rather than purchasing physical servers that would eventually require another refresh, cloud subscription costs could be spread across years.
- **Office moves created an opportunity.** Moving locations allowed offices to reconsider whether a traditional server room, dedicated cooling, and substantial on-site server hardware were still necessary.

2. 13Cloud / QC Networks Experience

The QC Networks discussion centered on an environment in which core servers and Chapter 13 workloads are hosted away from the local office while the office retains the networking equipment required to reach those systems.

- **No new server hardware requirement:** a key benefit was avoiding a major local server purchase during an office move or refresh cycle.
- **Fixed monthly cost:** the service was described as a predictable recurring expense, with backup included in the hosted arrangement.
- **Reduced cooling requirements:** without traditional servers in the suite, one office avoided an estimated additional \$5,000-\$10,000 air-conditioning investment and retained only a smaller network/ISP equipment room.
- **Backup consolidation:** because the office was already paying for QC Networks backup, moving workloads into the provider's cloud allowed the office to eliminate or absorb a separate backup expense.

- **Local network equipment remains:** switches, voice/network equipment, ISP gear, and related connectivity infrastructure are still required even when servers are no longer physically in the office.

3. 11:11 Experience

11:11 was presented as another cloud option, particularly in the context of VMware. The speaker described 11:11 as a global provider/reseller that also manages firewall infrastructure across the office, cloud, and disaster-recovery environments.

- **24x7x365 support:** the presenter valued continuous monitoring and support, including notification when problems occur.
- **Geographic resiliency:** the described design included geographically separated data-center/disaster-recovery resources, including East Coast and West Coast presence.
- **Reduced local server-room footprint:** after migration, the office's remaining local equipment was largely VoIP and communications/networking hardware.
- **Provider assessment:** for an office considering migration, 11:11 was described as able to analyze the existing environment and help determine an appropriate hosted design.

4. Business Continuity: Power Outages Became a Major Argument

Power reliability was one of the strongest real-world arguments for cloud hosting. One presenter described repeated power losses at a newly occupied suite, including a storm-related outage during the first weekend after the move and multiple additional outages during the summer.

- With locally hosted systems unavailable during an office power outage, staff may be unable to upload or process documents even when they personally still have internet access elsewhere.
- With cloud-hosted systems, a staff member may be able to leave the affected office, connect from home, and continue working because the application/server environment is not dependent on power at the office.
- A separate example involved a fiber cut caused by construction. Office performance became dramatically slower, but users who went home could connect through alternate connectivity/VPN paths and work normally.
- The discussion reinforced that cloud hosting does **not** eliminate dependence on connectivity; instead, it can shift the recovery strategy from restoring local servers to finding a working internet path.

5. Remote Work and Access Models

The presenters described more than one remote-work design. The important distinction was whether remote employees first connect to an office workstation or connect directly to the hosted environment.

Model	How it works	Operational implication
Office-PC remote desktop	Remote staff connect to their desktop computers in the office; those office PCs then reach the cloud-hosted network/resources.	Still depends on the office workstation and office power/network path being available.
Direct VPN to cloud	Home laptops/PCs use VPN with two-factor authentication and connect directly to the hosted Chapter 13 environment.	Can reduce dependence on the physical office during a power or local connectivity failure.
Virtual PC / thin-client style	A hosted virtual desktop is streamed to an endpoint rather than storing the work locally.	Can simplify endpoint requirements while preserving access to hosted applications; multi-monitor support was specifically important to staff.

6. Internet Bandwidth Is Now Mission-Critical

The cloud removes some local server dependencies but makes reliable internet access more important. The presenters noted that office bandwidth should be strong and that degraded connectivity can make normal work take two or three times as long.

- A fiber cut demonstrated how a cloud environment can remain available while the office's route to it becomes the bottleneck.
- Home users with better connectivity could sometimes work faster than users remaining in the affected office.
- A hosted solution therefore needs to be evaluated together with primary ISP capacity, redundancy/failover, VPN design, and the office's tolerance for degraded service.

7. Performance and Application Behavior

The session did not present cloud migration as performance-neutral in every circumstance. The presenters identified several workload-specific effects that appeared after migration.

- **Disbursement calculation:** one office reported that reduced RAM in the cloud caused the disbursement calculation to take roughly 10-15 minutes longer, although check printing and the overall disbursement schedule were not materially disrupted.
- **Merge files:** one presenter found certain merge files/orders performed better locally, with files appearing to lock more frequently on the cloud server.
- **Login delay:** after a recent VSS upgrade, a user might see a login state for approximately 20 seconds after entering credentials, although normal performance resumed once connected.
- **Storage can be adjusted:** hard-drive capacity was discussed as something that can be sized or changed, but compute resources such as RAM and application responsiveness still require attention.

8. Network and VLAN Troubleshooting

A real-world connectivity problem involved a VLAN configuration on a provider-managed switch. The office intermittently lost internet access until troubleshooting isolated the VLAN issue. The provider deleted and recreated the VLAN; after the change, connectivity returned and the office reported no recurrence of that specific problem.

9. Migration Strategy and Cutover

The migration experiences emphasized disciplined project management, staged testing, and a planned cutover window. One project began around the Thanksgiving/Christmas period and went live in March.

- **Staged transition:** one approach brought up a domain controller first and then moved VSS-related servers.
- **Rollback mattered:** when the first attempt to bring up the VSS environment encountered a SQL database problem, the office returned to the regular servers while the provider investigated.
- **Disaster-recovery testing helped:** another office had already practiced bringing alternate servers online, opening VSS, testing functionality, and then bringing the environment back down.
- **Cutover timing:** one office selected a Friday without hearings, expected synchronization to continue through the weekend, and warned staff that performance would temporarily be slow.
- **Staff downtime:** another migration kept staff out of the office for two days and brought the environment up on the third day.

10. Authentication, Firewalls and IP Address Changes

The move to a new office/public IP introduced an authentication dependency. The presenter had to coordinate with Duo and firewall support because the public IP address changed. A behind-the-scenes adjustment restored Duo authentication in roughly 20 minutes.

Planning lesson: cloud and office moves should include an inventory of systems tied to public IP addresses, firewall rules, VPNs, MFA services, allowlists, vendor integrations, and other external trust relationships.

11. Support Experience

Support was discussed as both a benefit and a practical constraint. Managed providers can add expertise and around-the-clock coverage, but response time still depends on provider staffing and the nature of the issue.

- The presenters generally described QC Networks contacts as responsive.
- A real example involved password assistance while key provider personnel were attending NACTT; the user waited roughly one to two hours before receiving help.
- 11:11's 24x7x365 support model was highlighted as a major benefit for an office seeking broader coverage than a single internal IT administrator can provide.
- The group emphasized the value of choosing a provider that understands Chapter 13 applications and can assist when the office's normal IT resource is unavailable.

12. Cost, Procurement and UST Approval

The presenters described comparing cloud costs against the full cost of remaining on premises, not simply against a monthly hosting fee.

On-Premises Cost/Issue	Cloud Comparison Raised in Session
Server purchase / refresh	Avoid or defer new physical server purchases; subscription costs are spread over time.
VMware / virtualization licensing	A significant reason to investigate hosted alternatives.
Backup service	Could be included with hosting, allowing a separate backup expense to be reduced or eliminated.
Server-room cooling	Potentially reduced when local servers are removed.
Disaster recovery	Provider-hosted DR can be incorporated into the service design.
Support coverage	Managed support can supplement a small or single-person internal IT function.

For approval/procurement, one office obtained three quotes because its finance process required them. Another compared the cost of replacing physical servers with the total cloud price. The discussion suggested that UST approval was manageable when the office could show the comparison and explain that the cloud model avoided or replaced other infrastructure expenses.

13. Other Cloud Options and Hybrid Environments

The group acknowledged that QC Networks/13Cloud and 11:11 are not the only approaches. Azure was mentioned as another option, including an example of an office that still retained some servers locally. This reinforced that 'cloud' does not have to mean an immediate all-or-nothing migration; hybrid designs can remain appropriate depending on applications, support, cost, and office needs.

14. Virtual PCs, Mini PCs and Multi-Monitor Requirements

Endpoint design became an important practical part of the discussion. Staff productivity requirements - especially multiple monitors - can be more important to users than the underlying cloud architecture.

- **Virtual PCs:** the presenters discussed offices using hosted/virtual PCs, essentially streaming the working desktop rather than relying on locally stored application data.

- **Multi-monitor support:** this was repeatedly identified as essential. Examples included users with three or four displays and trustees using stacked ultrawide monitors.
- **Mini PCs:** one office used small PCs instead of laptops for home workstations, reporting a purchase price of approximately \$275-\$280 each for a group of 20 units before later memory price increases.
- **Durability/cost:** mini PCs were favored by that presenter because they were less expensive than many laptops and avoided common laptop damage/charging-port issues.
- **Home/office symmetry:** a user could have a mini PC at home and another endpoint at the office while accessing the same hosted or remote environment.

15. Key Advantages Identified by the Presenters

- Reduced need to purchase and refresh local server hardware.
- Potential reduction in VMware/licensing exposure.
- Backup and disaster-recovery services can be integrated with hosting.
- Less dependence on office power for core server availability.
- Reduced server-room cooling and infrastructure requirements.
- Additional managed support beyond a single internal IT administrator.
- Potentially easier continuity when staff work from home or another location.
- Provider expertise with Chapter 13 environments can reduce operational risk.

16. Challenges and Tradeoffs Identified

- Internet connectivity becomes a critical dependency.
- Bandwidth limitations or fiber outages can cause major slowdowns.
- Some workloads may run more slowly if cloud compute resources are undersized.
- Certain file/merge processes may behave differently or experience locking.
- Migration can expose SQL/database, VLAN, firewall, MFA, and IP-address dependencies.
- Provider support is still a dependency; response time can vary.
- A disciplined migration plan, rollback path, testing period, and staff communication are necessary.
- Cloud does not eliminate local equipment: switches, ISP gear, firewalls, voice systems, and user endpoints remain.

17. Practical Evaluation Checklist for a Chapter 13 Office

Area	Questions Raised by the Session
Applications	Which Chapter 13, SQL, document/merge, accounting, and reporting workloads must move? Which should remain local?
Compute	How much RAM/CPU is required to keep disbursement calculations, VSS, SQL, and other workloads responsive?
Connectivity	Is office bandwidth sufficient? Is there a second ISP, failover, alternate VPN, or workable home-office path?
Security	How will MFA, Duo, firewalls, public IP changes, VPNs, VLANs, and provider access be managed?
Backup/DR	What is included? Where is the recovery environment located? Has failover and return-to-production been tested?

Area	Questions Raised by the Session
Support	Is support 24x7? Does the provider understand Chapter 13 software? What happens when the internal IT administrator is unavailable?
Endpoints	Will users remote into office PCs, connect directly to cloud, or use virtual desktops? How many monitors are required?
Cost	Compare hosting against hardware refresh, VMware/licensing, backup, cooling, DR, and support - not against server hardware alone.
Migration	What is the staged plan, test plan, cutover window, rollback process, and staff communication plan?

18. Session Takeaway

The presenters' collective experience showed that cloud migration can materially reduce the burden of local server ownership and improve resilience against office power failures, but it transfers greater importance to connectivity, provider support, resource sizing, authentication, and migration discipline. The decision should be based on the office's complete operating model: Chapter 13 application requirements, hardware lifecycle, VMware/licensing exposure, backup and disaster recovery, internet redundancy, support needs, endpoint strategy, and total cost over multiple years.