

QUBE

Q: What about all the Technical issues?

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<http://QUBE.cc>



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27th March 2019



1. Introduction

Q1 What Is It?

A It's a place to learn so you can tackle your challenges with fresh thinking.

A It's a way to keep working together as if you are in the same place when you are hundreds of miles apart.



2. System Requirements



PC*	Mac
<p>Processor: Intel Pentium II or above RAM: ≥ 1GB recommended Screen resolution: ≥ 1024x768 Graphics: OpenGL v1.3 or later Operating System: MS Windows XP or later * QUBE will also function on top end windows tablets If you don't know the equipment specifications go to http://Pentacle.co.uk/BelarcAdvisor.htm and follow the instructions (You don't need security definitions)</p>	<p>Processor: Intel based Mac RAM: ≥ 1GB recommended Screen resolution: ≥ 1024x768 Graphics: OpenGL v1.3 or later Operating System: Mac OS X 10.7 to 10.14</p> <p>IMPORTANT: As of Mac OS X 10.15 (Catalina), Apple have made changes that have broken how many programmes, including QUBE, work on Macs. We are working on fixing this as soon as we can, but in the meantime Mac users running Catalina or a later operating system should contact QUBE@PentacleTheVBS.com for alternative installation instructions.</p>

3. Technical service / support

Is it simple and easy to install?
 YES.



QUBE is easy to install. It installs as a portable application which means that it won't interfere with any preinstalled applications. It can be deployed as a package, or downloaded by each user, if they have sufficient privileges to install software on their PC or Mac. A current copy can always be safely downloaded from <http://QUBE.cc/downloads/>

To uninstall cleanly without any residual files exit the QUBE Launcher in the tray   and use the provided QUBE uninstall link

How will you resolve problems with the system?

Most problems arise during the initial installation and set up QUBE software. They are usually related to IT security policies. Later in this document we provide all required information and firewall/port settings. Firewall settings should be adjusted *ahead* of deploying QUBE for a trouble-free installation.

Users can resolve almost every problem with our troubleshooter which is available at <http://QUBE.cc/help-frequently-asked-questions/>

What will we do when everything goes wrong?

You can also contact us by email or phone with any queries you have QUBE@PentacleTheVBS.com +44 1494 674326

In addition we will work with your own IT Help Desk service to ensure that they have all of the information and tools required to be able to resolve the majority of your problems. If your Help Desk cannot address your issue, it will be escalated to us until it is resolved.

What is the SLA / turnaround time for support issues?

For basic issues and problems, the SLA is dependent upon your IT department's Help Desk policies and SLA. For problems that are escalated to us by your Help Desk, note that **we are not primarily a software company** and use QUBE to enable learning and business application so we have a policy of response well before the next learning event, usually within a working day or the next day.

How do we report problems that we're having?

Users should report a problem to your Help Desk through your normal processes and procedures. The Help Desk will manage your ticket and be your main point of contact until problem resolution. As required, the Help Desk will contact us for detailed technical support.

Will our users find it slow?

NO.

The speed depends on the local computer and the network connection which is provided. QUBE is a "three-dimensional browser". It provides rich, engaging multimedia environments for optimal shared working and learning. For users making use of QUBE over the Internet, a broadband connection is highly recommended although a stable 3G connection is adequate.

The first time a user access a space, some content is cached locally to improve performance later. Therefore, it may be slower the first time they enter that space, but will operate at its normal quick speed every time they return.

4. Administration

Will we have to employ someone just to manage users?

NO.

Pentacle will normally set up the groups and access for any organisational group. However if you wish to manage the users yourselves small groups of users can easily be managed from on QUBE itself. Larger groups can be set up using a batch approach.



How is it deployed and how are software updates managed?

QUBE is easy to install, either by deploying it as a package, or downloading by each user, if they have sufficient privileges to install software on their PC. Essential client updates are downloaded automatically when users connect to QUBE. Other software updates are either automated or manually deployed based on IT or Help Desk policies.

A current copy can always be safely downloaded from <http://QUBE.cc/downloads/>

5. Data storage / location

Can other people see our data? Is it safe? Is it kept private?

NO. People outside your organisation cannot see your data. YES it is safe. YES it is kept private.

QUBE is a shared learning and meeting environment. Primary access is structured by organisation. Users will not have sight of any organisations they do not belong to. For the organisations they have access to there is selective access to the individual qubicles (spaces) where individuals and teams learn and work. Data within these defined qubicles is visible only to the people who have been granted access to them. If you do not have access to a particular qubicle, you are unable to access the data within it. Data transfer between users is encrypted.

Where is the data located?

QUBE data is located either on our server, or on a server within your IT infrastructure (via a QUBE Enterprise Server software installation). Local user machines contain cached copies of image data for enhanced application performance.

6. Security

What security protocols does it use?

QUBE's security model uses "best practices" standards-compliant encryption such as ARC4, stream cipher, MD5 and cryptographic hash functions based on 128-bit hash values. All outgoing public, voice, video and text communication is encrypted. The QUBE app can be run over VPN.

What information is passed out of our network?

Video, voice and text is passed out of your network when QUBE is accessed via the Internet, and if you decide to use our file and application servers. All data is encrypted during transmission.

7. Ports / firewalls / network impact

Will we have to change our firewall to make it work?

POSSIBLY.

Our servers use **port 1234 and port 443** and at least one of these would need to be available and open on your firewall. Port 443 is typically also used for encrypted web traffic, and therefore often already opened. If you opt to host your own Enterprise server, you can configure any port you want.

Is it stable? Will it bring down our network?

YES QUBE is stable and NO it will not bring down your network.

The software is mature, and its design keeps multiple redundant copies of the data shared amongst all the users, so that in the unlikely event of a user losing their connection, none of their data is lost. QUBE uses industry standard TCP/IP networking protocols and standards to ensure stable, reliable operation. The typical bandwidth consumption is 50kbps but anticipate a top-end bandwidth



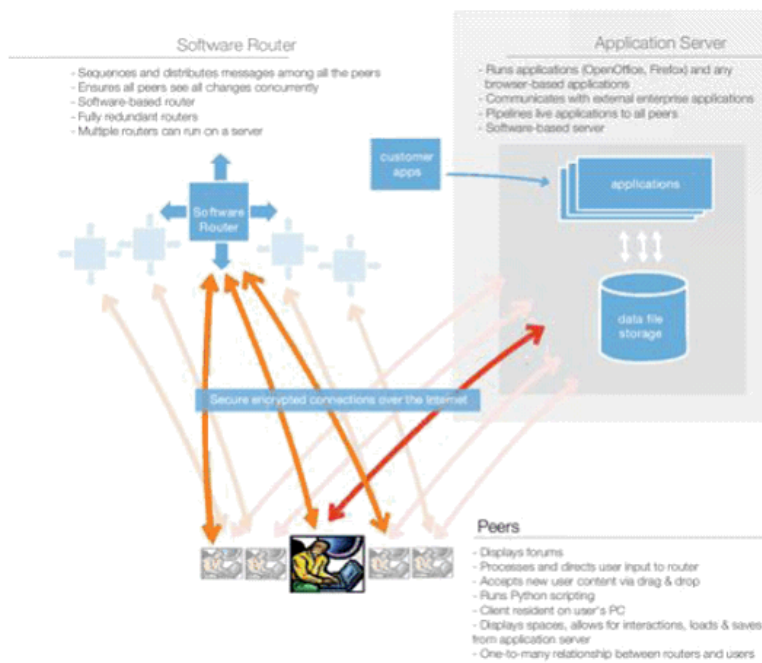
consumption below 200kbps.

How much bandwidth is required for different activities?

To ensure optimum performance for Internet-based QUBEs and QUBE services, we recommend a broadband connection, although QUBE will operate satisfactorily over a 3G network.

What is the client / server topology? Is it robust?

QUBE uses the TeaTime networking architecture. The TeaTime architecture is robust, and redundant. The network and client/server topology is illustrated as follows:



8. Performance

How responsive is QUBE?

VERY.

QUBE provides rich, engaging multimedia environments for optimal shared working and learning. To provide this experience, users need relatively recent generation personal computers. For users making use of QUBE over the Internet, a broadband connection is highly recommended. The first time a user access a space, some content is cached locally to improve performance. Therefore, it may appear slower the first time they enter that space, but will operate at full speed every time they return.

How much bandwidth is required for different activities?

To ensure optimum performance for Internet-based QUBEs and QUBE services, we recommend a broadband connection although QUBE will work satisfactorily over a 3G connection.



9. Standards/interoperability

Will QUBE impact on our other critical applications?

NO.

QUBE is typically a stand-alone installation which can share network resources but does not require any specific integration with other applications, and therefore should have no impact on their operation.

What standards is QUBE compatible with?

Open standards allows QUBE to serve a broad range of market needs and is built on the following open and de facto standards:

- Synchronization for collaboration: Croquet (including TeaTime).
- Networking protocols: TCP/IP, compatible with proxy servers, VPNs and other standard networking devices.
- Security: RC4 and MD5.
- Document formats for collaboration: Microsoft Office: PowerPoint, Word and Excel; Adobe PDF files; JPEG and GIF image files; MPEG movie formats; and Mozilla Firefox for HTML and web-based applications.
- Video: Streaming video from webcams and MPEG4 video files
- Voice-over-IP: OpenAL and Speex.
- Development Python programming language.
- Remote Application integration: XML and SOAP

10. Training

Is it easy to learn to use?

YES.

QUBE contains an Orientation quibble where in about a quarter of an hour new users will learn all they need to make using QUBE effective productive and enjoyable. Orientation is operates on a learn-by-doing principle, so through experience and trial & error a memorable set of guidelines and instructions is learnt. There is also a 'Cheat-sheet' available from http://PentacleTheVBS.com/QUBE_CheatSheet.htm

How will we train people to use this effectively?

THERE IS NO NEED TO **TRAIN** PEOPLE TO USE QUBE

Focus should be on communicating the **change management** of using QUBE. QUBE fundamentally alters how people can learn and work and so the main challenge is in engagement and understanding of *why* we use QUBE and *how* it can help

QUBE includes a self-training module in the form of an 'Orientation' quibble for all new users as part of a QUBE installation. All QUBE fundamentals are covered within this quarter of an hour self-training module.

Additional support for challenged individuals can be provided directly by Pentacle in interactive training sessions, or through a train-the-trainer approach.