



**Bytes of Learning**

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## About the UltraKey 5.0

### Data Server Software

Last Updated: September 2007

In 2005, Bytes of Learning released the first ever IP-based data management system for instructional software. This page answers the most frequently asked questions about this new technology:

#### What is the Server Software?

The UltraKey 5.0 Data Server Software is an application that runs as a background service on a Windows computer. The Server Software communicates with copies of UltraKey 5.0 running on Windows and Mac computers.

#### What are the technical requirements?

The Server Software may be installed on any PC with Windows 2000, 2003, XP or Vista. The PC does not have to be a server and it does not have to be dedicated to the UltraKey Server Software.

#### What does the Server Software do?

The Server Software receives information from running copies of UltraKey 5.0 and sends information back to those copies as students and teachers use the UltraKey 5.0 instructional program.

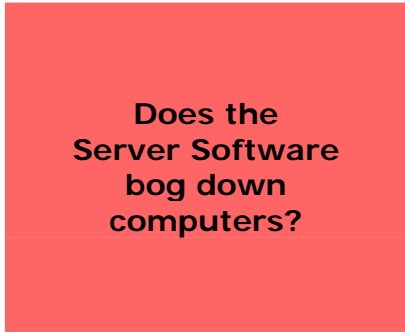
The Server Software stores information by writing files in its local directory. According to a schedule set by the administrator, the Server Software backs up the files to a designated directory, ensuring that precious records are not lost.

#### How does the Server Software work?

The Server Software communicates with copies of UltraKey 5.0 using Internet Protocol ("IP"). IP communication consists of packets of information that travel across networks, wide area networks and the Internet. Email programs, anti-virus programs, and update managers all use IP.

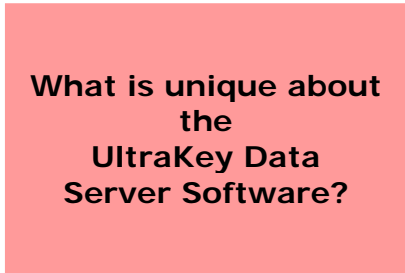


The Server Software "listens" for data requests and responds, handling thousands of such requests every minute. Once the Server Software is running, which takes minutes to achieve, users can forget it's there!



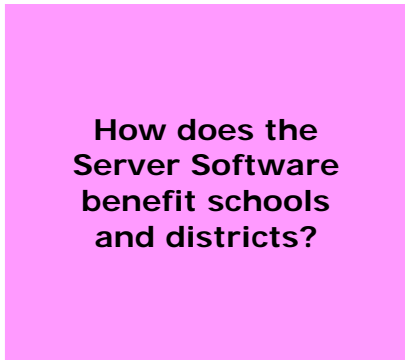
The Server software itself requires very little processing power. It can be installed on a teacher workstation and manage the whole school's use of UltraKey. Meanwhile, the teacher can continue to use the same workstation for any other purpose at the same time.

At each student workstation, the IP-based communication that occurs between UltraKey and its Data Server Software is all characters and numbers and no graphics, so the communication activity is not noticeable.



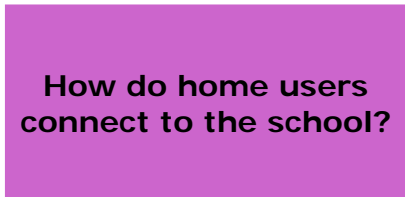
Bytes of Learning's Server Software has been engineered to handle thousands of student users and teacher users simultaneously with no noticeable slow down. Extensive error handling intelligence makes the service extremely robust.

Bytes of Learning's Server Software encrypts all communications so sensitive student information cannot be intercepted.



Since one installation of the Server Software can serve an entire school district, the total cost of ownership is extremely low. Security is no longer a concern because nobody has access to the central data or the server that contains it.

UltraKey communicates with the Server Software so students and teachers can easily log in to their accounts from any workstation, anywhere. If the district permits access from home, teachers can manage their classes at their leisure. Students can continue learning at home while being tracked at school.



To allow secure communication from outside the school, UltraKey can create a connection key, which is an encrypted file for home users. Users connect by double-clicking the connection key file. This starts UltraKey, which interprets the encrypted connection information and automatically locates the Data Server Software. Users then operate UltraKey like they never left the school site.

**What if we don't want home users to connect?**

If the school or district does not want home-to-school connections, then don't use this capability and do not distribute a connection key.

The Server Software provides many benefits without connecting to homes. We only mention the home connection possibility because it is made possible by this technology.

**How is the Server Software implemented?**

One installation of the Data Server Software serves the entire site or district. If communication will occur through a wide area network or the Internet, then port 5976 must be opened in the firewall of the PC on which the Server Software is installed. An external IP address must be mapped to the internal IP address of the serving PC.

If you are installing the Data Server Software to serve one school, it can be installed on any PC that is part of the network.

**Does opening a firewall port reduce security?**

On every computer, certain ports must be open for any communication to occur between the computer and the rest of the world. By industry standard, some ports are open by default so the computer can network, browse the Internet and pick up email. Opening a port for UltraKey is a legitimate procedure agreed on by the computer industry. Hackers cannot access a computer through a firewall port and a computer is no less secure for having opened a particular port.

**We're a Mac school. How can we use this software?**

The Data Server Software communicates with UltraKey on Mac and Windows. Even when the school does not have a Windows server, the Data Server software can be installed on any PC.

If an all-Mac school has access to any Windows PC anywhere, then the problem is solved. Some all-Mac schools have reinstated an unused PC or they have gotten the co-operation of the school or district office to install the Data Server Software on a PC or Server located there. Some all-Mac schools install the Server Software on the Windows partition of an Intel Mac.

**Are there plans for a Mac version?**

Bytes of Learning intends to release a Unix-based Data Server application, which would provide all-Mac schools with an all-Mac solution. No specific date has been set. In the meantime, we suggest the above strategies so all-Mac schools can enjoy the best available services regardless of whether a Mac-based server solution is available.

**Can we install the Server Software on a Novell server?**

The Data Server Software does not work on a Novell server. However, the Server Software can operate on any workstation or PC connected to the Novell network.

The only requirement is that the Server Software must be on a computer that has a fixed IP address because UltraKey remembers the Server Software location by its IP address.

**How can we test the Server Software before we buy?**

Schools and districts may request a trial license and download the software. Schools are welcome to install and test the UltraKey Data Server Software to whatever extent they need. For multiple schools, please contact us for a key that permits this.

We provide full technical support through the testing period and thereafter.

**How do we purchase the Server Software?**

The UltraKey 5.0 Data Server Software and license are provided with any Network IP edition of UltraKey 5.0. The Server Software is included with all unlimited site licenses including the one-year site license currently offered through this web site and all resellers.

If you own UltraKey 4.0 or a Standalone Plus edition of UltraKey 5.0, contact our customer service department to [request an upgrade quote](#) . Please provide details about your current license so we can better assist you.

**What if we have other questions?**

Please feel free to [contact us](#) and discuss your particular situation in more detail.

If you have a software selection team or you need to satisfy the concerns of several departments in the school or district, we are pleased to arrange an Internet conference with all your colleagues at a mutually acceptable time.