Learning the FirstClass® Way

FirstClass…
        allows you set the parameters

Prepared 23/04/01 by:

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About Centrinity

Centrinity is a leading developer of integrated **communication, collaboration and content delivery** solutions to education markets worldwide. Because knowledge and communication are the new currencies, and all those who share information need tools that enable them to succeed in the knowledge economy, Centrinity is committed to creating learning solutions that help teachers, students and parents to communicate, share information and ideas, and work together online.

Centrinity is shaping the evolution of education with learning tools that are student-centered, customisable, easy to implement and simple to use. From kindergarten playrooms to university halls of higher learning, Centrinity brings the knowledge to the classroom with innovative learning solutions.

Centrinity's flagship product, **FirstClass,** is available in **12 languages**, and reaches education and commercial markets in over **55 countries**. Centrinity products and services are distributed worldwide to **6 million users** in more than **8,000 organizations** through 450 channel partners and distributors.

Centrinity Inc. is a public company listed on the Toronto Stock Exchange under the symbol "CTI." Our website is located at www.centrinity.com.

Introducing FirstClass

FirstClass supports and fosters communication and collaboration in a secure online environment designed particularly with learning needs in mind. It integrates communication, collaboration, document authoring, web publishing, content delivery and calendaring tools in one easy-to-use solution. It enables educational institutions to set up a thriving online learning community for its students to collaborate and learn in.

The education version of FirstClass has already received the "Top Winner" Software Award of Excellence from *Technology & Learning* magazine, the 'Top 100 Products' Districts Choice Award from *Curriculum Administrator* magazine and the '1999 Blue Ribbon Award' from *Network World*.

The fact that FirstClass combines Audio mail, Collaborative mail and Electronic mail, in one easy-to-use solution allows teachers to bring learning alive for the students and to push the parameters of learning beyond traditional methods.

A learning community's needs are not just restricted to learning. Students need outlets for social interaction, discussion, tutorials and mentoring. Likewise teachers require interaction with their peers, areas where they can access information on school or college policies, schedules for exams, make announcements, etc. It is the ability of FirstClass to deliver all this, in addition to online learning that truly sets it apart from all other online learning solutions available today – by effectively bringing the entire organisation, as opposed to just the learning materials, to the user's desktop. FirstClass delivers more than online learning……it is the reason why world-renowned online learning institutions such as The Open University, University of Maine, Sheffield Hallam University and even entire countries have chosen FirstClass as their online learning solution…….it is the reason why FirstClass customers become its most loyal advocates.

The purpose of this paper is to communicate the benefits of FirstClass within an online learning environment, provide examples of how our customers are using it, and highlight what sets FirstClass apart from other solutions in the market.

CENTRINITY

FIRSTCLASS
COLLABORATIVE
CLASSROOM
GOLD

FIRSTCLASS
INTRANET SERVER
GOLD

Benefits of FirstClass in a Learning Environment

FirstClass helps bring together students, educators, administrators and outside experts in a state-of-the-art collaborative environment. The key benefits of FirstClass in a learning environment are summarised below:

The Desktop

All FirstClass users have their own desktop consisting of their own personal mailbox, address book, personal and possibly class calendars as well as a number of collaborative areas (known in FirstClass as conferences) relevant to the classes they are taking at the time. This desktop can be populated by the
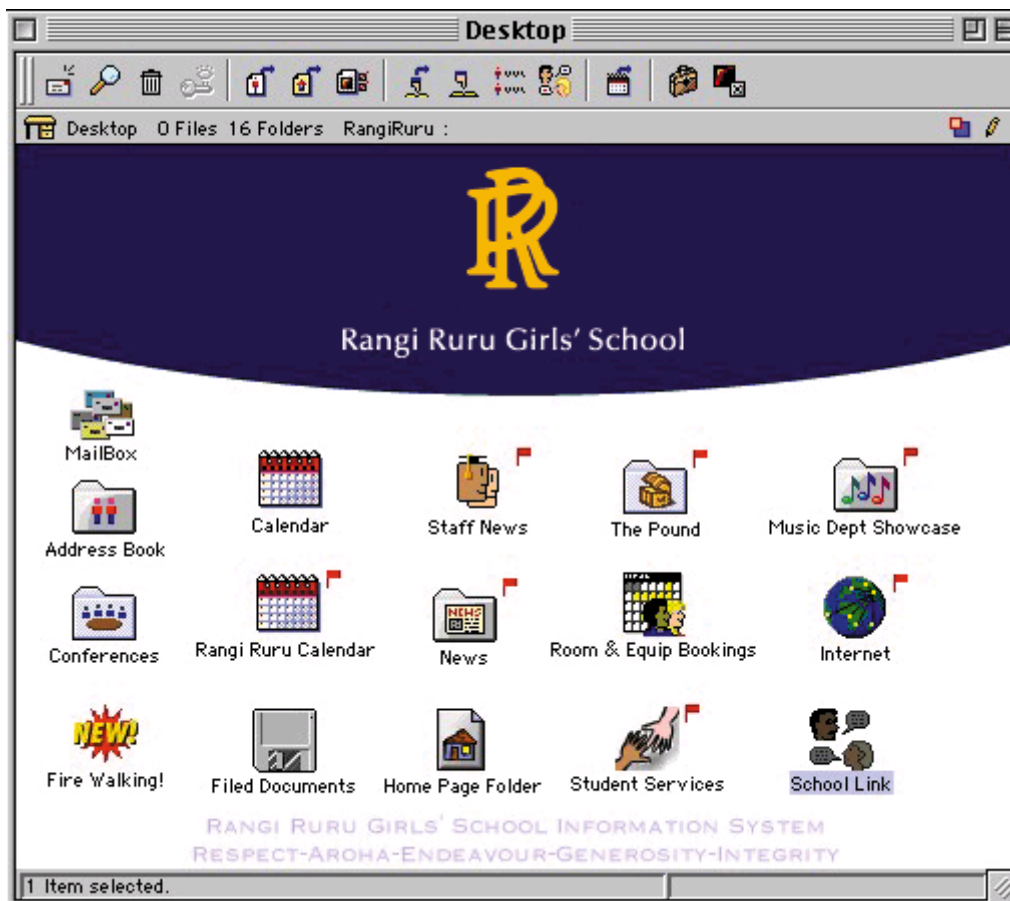
Rangi Ruru School's FirstClass Desktop

user with the conferences they most frequently participate in. It is easy for the student to keep track of when new materials/messages are posted to conferences as a red flag will appear outside the icon representing each conference. Above is an example of a FirstClass desktop from Rangi Ruru School.

Multimedia Communication

The ability for students and teachers to work together using text messages which can be enriched using pictures, file attachments, hyperlinks and voice provides for a richer and more diversified online learning environment.

Imagine the advantages of being able to communicate using audio mail…students can record and listen to audio messages, exchanging audio mail with students in schools all across the world in many different languages. The beauty of this type of technology is that it enables students to listen, reflect and respond in their own time before sharing their work with their peers.

Audio mail enhances the user email experience by introducing tonality and personality to electronic

messaging. Audio mail can be stored, retrieved, forwarded and deleted just like other e-mail. The students' messages can be further enriched by the ability to drag n' drop pictures directly into them.

The addition of voice, video, and pictures allows otherwise bland messages to come alive. Even better, all these features are available over the web, so that those without access to a FirstClass client can still communicate. This visual and audio enhancement is especially useful for teachers, who can supplement existing learning materials with audio excerpts and provide audio feedback to students on submitted assignments. Above is an example of a FirstClass multimedia message utilising voice and graphics.

Online Calendaring

FirstClass has a full calendaring environment built in, providing users with excellent resource and time management capabilities. As well as users' personal calendars, course/class, resource, group and location calendars can be created.

Permission controls make it easy to grant and control access to created calendars, and the internal FirstClass scripting language makes it easy to populate created calendars, e.g. when a user enrols in course 101, the user's calendar is "populated" with the corresponding course's times and events.

The calendar reminds users of their scheduled appointments at a self-appointed interval - anything from several days, down to several minutes in advance. Agendas for meetings or classes can be posted to the calendar when scheduling an event. The calendar also incorporates a Task List which offers the user a variety of options to help prioritise and monitor how they are progressing with the task identified.

Online Chat

Chat

FirstClass provides a live text chat facility which allows synchronous communication between users with very little bandwidth overhead. Students and staff can communicate via a live text chat to have questions addressed quickly or to work as a group to discuss a project they may be working on. Language students can use online chat to participate in live chats with foreign students.

Chatrooms

Chatrooms for particular courses or issues can be set up, where a lecturer can invite a number of students to participate in a group chat. Note this feature can also be disabled. FirstClass Chats are commonly used in distance education environments to enable user interaction and provide real-time tutorial group solutions.

Online Collaboration

One of the key strengths of FirstClass which distinguishes it from its competitors in the area of online learning is the rich collaborative environment it provides. This collaborative environment is characterised by the use of FirstClass conferences. A conference can best be described as a communal online area/forum which can be used as a discussion area, an area where subject specific materials can be posted, an announcement area, a reference area, a Questions & Answers area, a shared knowledge bank, an archive area – and more. Tutors have the ability to upload homework exercises, course schedules, announcements, etc. for their students into these conferences. For the most part conferences are set up for specific subject areas and items (messages, announcements, documents, etc.) can be posted to them by sending a message with the name of the conference in the "To:" field, e.g. To: Geography Module. Below is an example of the T102 Notice Board sub-conference which is nested inside the T102 conference in The Open University's FirstClass system.
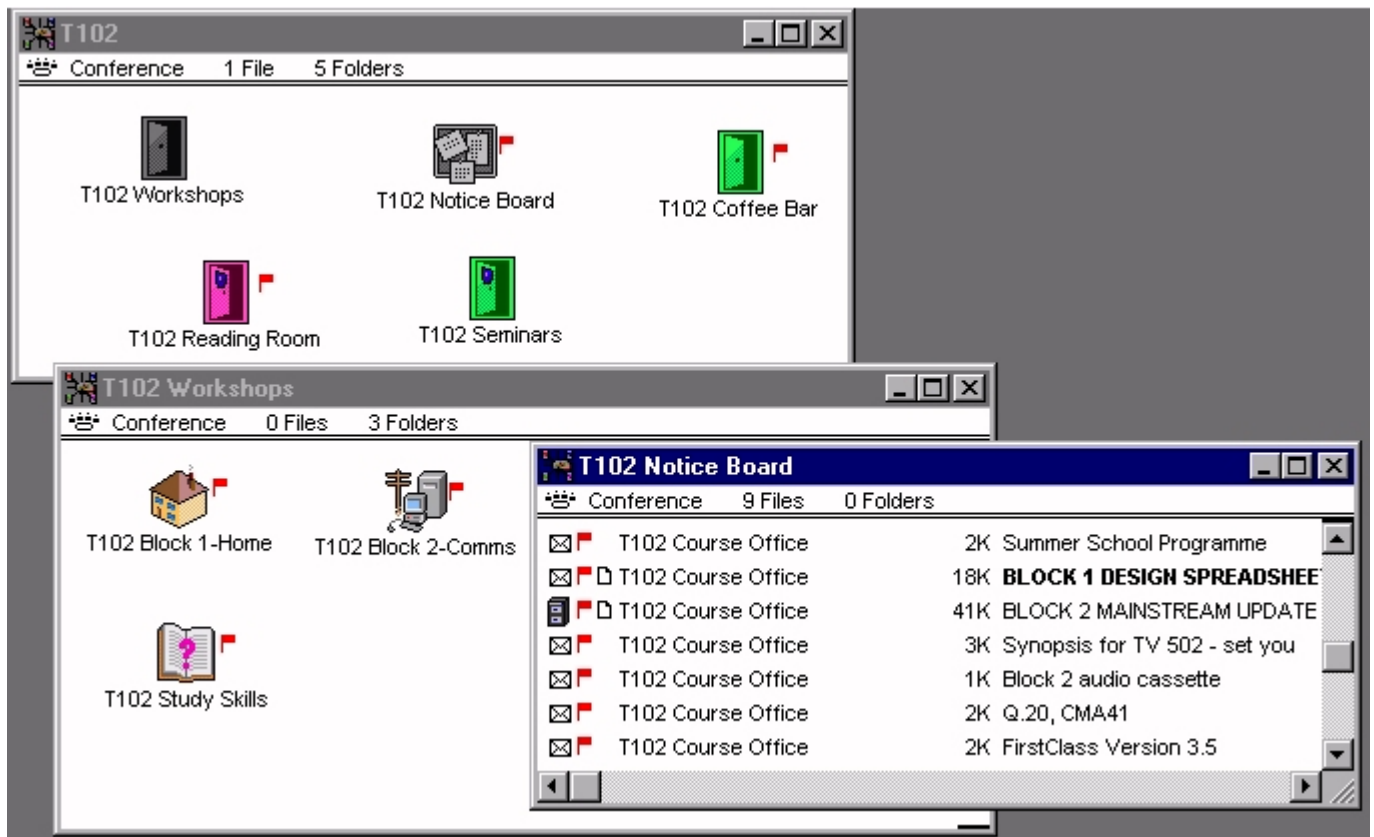

T102 Notice Board sub-conference nested inside the T102 conference in The Open University's FirstClass system

A conference is depicted by an icon on the user's desktop, with the name of the particular conference underneath. Only users who have been granted access to the conference will be able to see it on their

FirstClass desktop and open the items which have been posted to the conference. As a result, conferences can be created for the exclusive use of certain groups, e.g. Faculty/School staff, students taking Year 1 Microeconomics, etc.

Conferences can also be moderated by tutors or designated individuals, allowing for all messages and files to be "filtered" before being made available to the larger group. There are no limits to the number of conferences or sub-conferences that can be created in FirstClass.

Such an environment is ideal for facilitating online teacher-student and student-student discussion and support. Subject specific conferences can be set up for the students to collaborate both with their tutor and with each other on topics relating to their course. Conferences called 'Ask the Tutor' to which the students can post their questions are typically set up to support online courses.
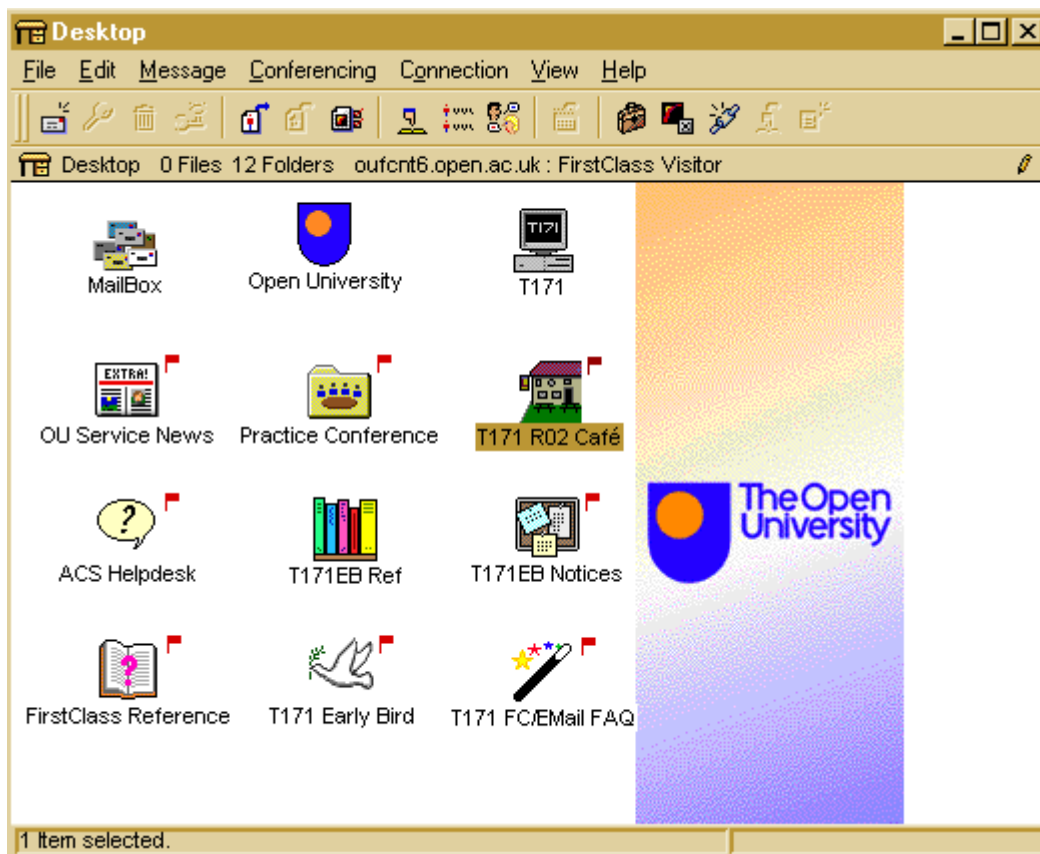
The Open University's FirstClass Destop showing the variety of conferences available to students
 taking their T171 course

If a college/school has a partner or twin college/school in another location, then a conference could be set up in which students from the two schools can communicate together about specific topics, e.g. an online

conference could be set up for fourth year students to participate in threaded discussions on 'The Effects of Increasing Ozone Layer Depletion'. The screenshot below provides an example of a threaded discussion within a conference called Global Village in Richmond School District's FirstClass system.
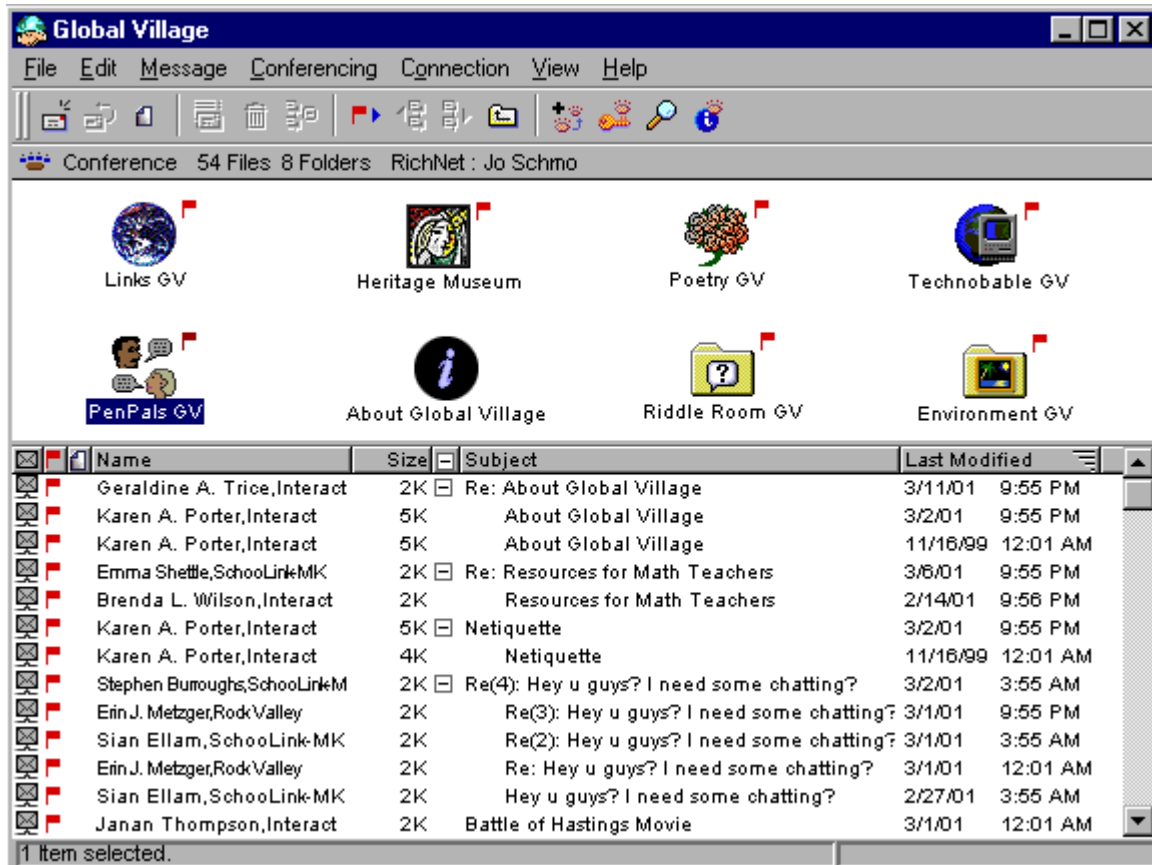
Threaded discussion within a conference/collaborative discussion area in Richmond School District's FirstClass system

Online Resume

Each FirstClass user has an online resume which can contain a picture as well as information about what courses they are taking as well as non-course related information such as their interests and hobbies. Students and tutors can then check with whom they are communicating.

Mail History

Teachers have the ability to make students accountable for e-mail and documents received using a History feature. Teachers can easily verify that a student has received a message in their mailbox, and even check if the message and its accompanying attachments have been opened and read.

Multi-Platform

FirstClass provides for a multi-platform environment and can be licensed for Macintosh, Windows, DOS, and UNIX Client logins.

Flexible Course Structure

Course structures can be built easily within FirstClass. Templates can be designed and stored in a script which can be "run" each time a new course is needed. Once the new course structure has been created, course content can be uploaded in a "drag and drop" fashion. Individual course components can be shared between courses with a simple point and click operation. The screenshot below shows an
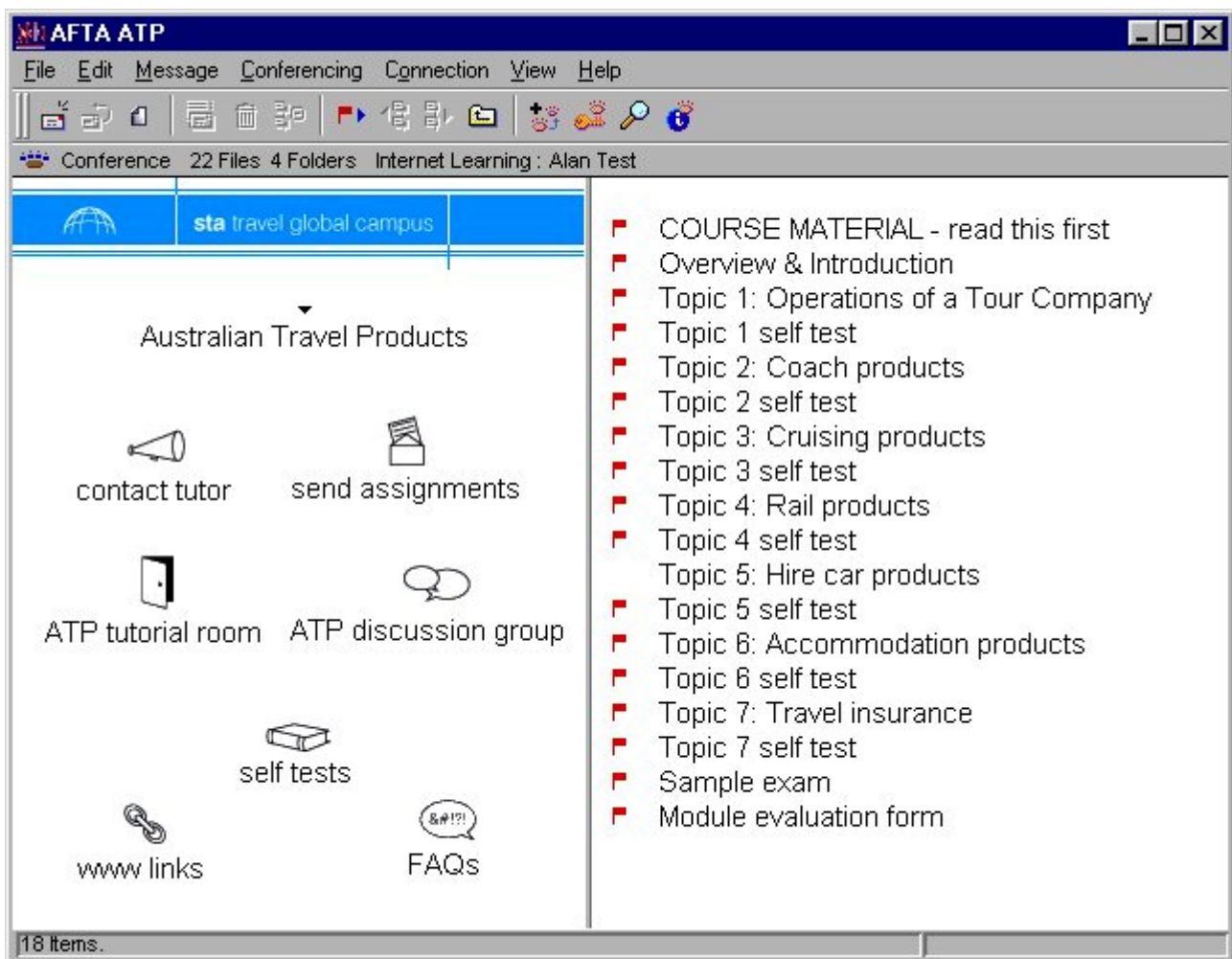
example of a course structure for the Australian Travel Products course being offered by STA. Typically in FirstClass, a main conference would be set up for a particular module, e.g. Australian Travel Products. A number of sub-conferences can then be set up within this main conference for sending assignments to, asking questions, discussing particular aspects of the course, making announcements relevant to the

course, etc. Conferences can either be set up by the main administrator or by the tutors themselves to whom sub-administration rights can be granted.

Easy Web Publishing

FirstClass is also a fully functional web server that allows users, with the proper permissions, to create their own homepages, without any knowledge of HTML coding. Compound documents can be authored using the FirstClass client and then "drag and dropped" into a conference, which can be replicated on the web or elsewhere. FirstClass renders out the content on the fly, so the accessing device sees the content in the appropriate format. This allows FirstClass users to publish documents quickly and easily without being a web expert!

Connect from Anywhere, Anytime from any machine

Staff and students can connect to FirstClass from home and other remote locations via the FirstClass Client or web browser and access the exact same information as they do when connecting to FirstClass over a local area network in the school or college. This gives both students and teachers great flexibility, particularly in the case of distance learning students for whom the ability to connect both from their working as well as home environment would be of great benefit. Furthermore, a user can connect to their FirstClass account via the FirstClass Client or alternatively via their preferred web browser.

An added benefit for educational institutions is that students do not have to use the same computer each time they connect to FirstClass – they will see the same information no matter what machine they connect from. This means that every student in the school or college can be part of the online learning community without the institution being compelled to purchase a computer for each one.

A Safe, Secure Environment

Most schools use the Internet to connect their classrooms with the vast amount of information and resources that exist outside the school. Intranets are designed to leverage the intelligence that resides inside the organisation and connect the users so they can build an effective learning community. Intranets exist to serve a defined community of interest, while the Internet is designed to serve any user, anywhere. While both Intranets and the Internet use web browsers, users outside an Intranet like FirstClass are restricted from access to information inside the Intranet's security boundaries. For example, a school or college can use FirstClass to set up their website and make certain areas containing information about the school public and accessible to the wider community. Internal class conferences and staff discussion areas would however require a userid and password to access.

Even once inside the FirstClass Intranet environment, conferences (collaborative discussion areas) on diverse topics can also be configured with various levels of security access. In this fashion, discrete conferences can be created for the exclusive use of school staff. Conferences can also be moderated by teachers or designated individuals, allowing for all messages and files to be "filtered" before being made available to the larger group.
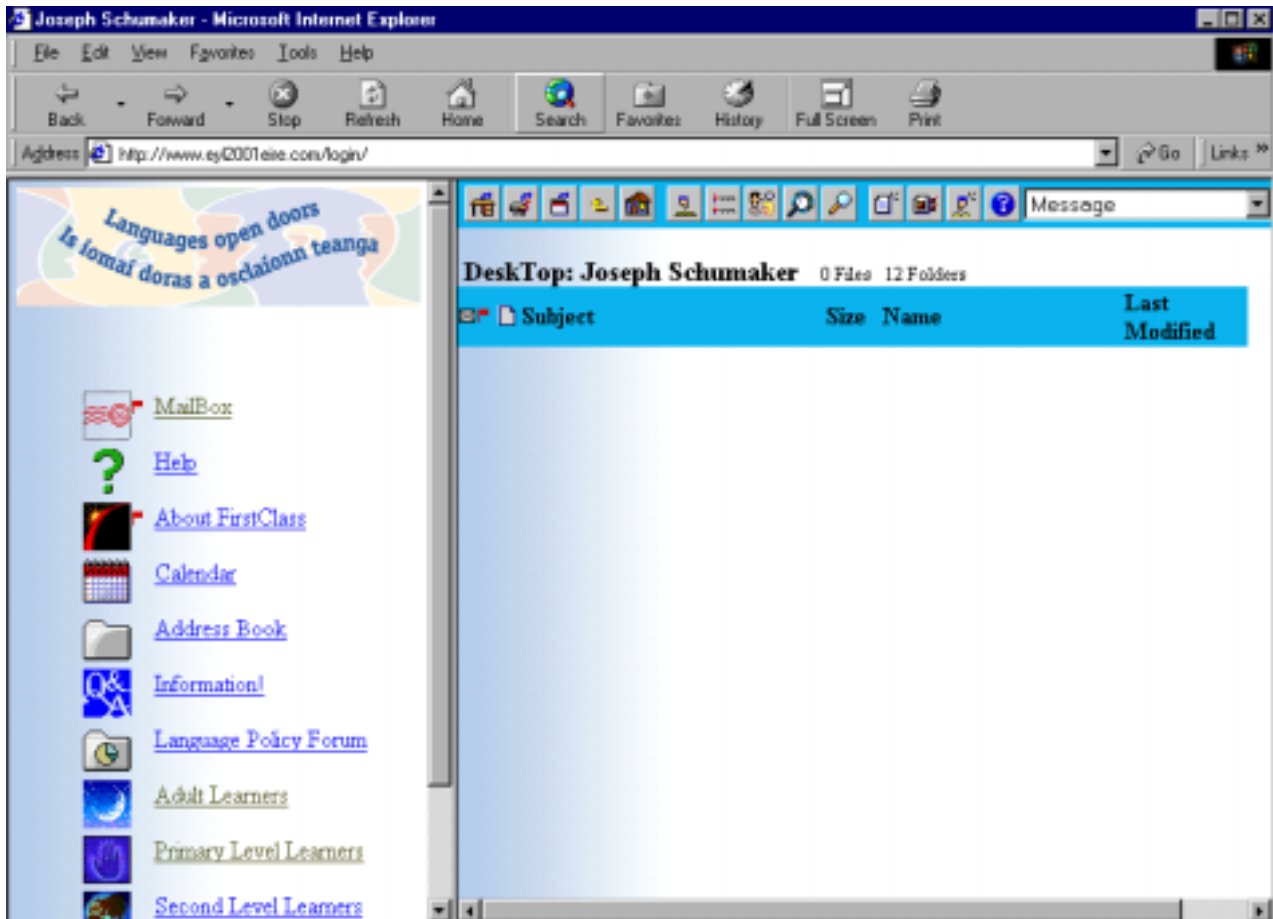
Example of a FirstClass Intranet Environment accessible via web browser

Access permissions are flexible, and are easily and conveniently configured for groups or individuals in minutes. Once rights and privileges have been set for a user or group, they remain in place regardless of how a user connects – with a FirstClass Client or using a web browser.

Content Creation

In addition to providing a complete learning environment, FirstClass also empowers teachers by equipping them with the necessary tools to enable them to create their own content and make it accessible to their students. Content relevant to the class can be created in FirstClass documents,

availing of the compound document editing tools to add pictures, stylised text, colours, sounds, video clips, and weblinks. These documents can then be simply dragged and dropped into a conference which can be replicated on the web or elsewhere. Teachers can also attach pre-prepared documents to FirstClass messages and post them in specific conferences they have set up for their classes.

Social as well as Learning environment

What inevitably happens in online learning environments is that conferences get set up to cater for individual interest groups and hobbies creating a cohesive social, as well as learning environment. By adding this social dimension to the online learning environment, FirstClass helps provide a more fulfilling online experience for both the students and staff.

Customisable to Support your Creativity

FirstClass can be easily customised to allow for creative communication. The FirstClass desktop can be customised to reflect the educational institution's own identity and users can transform their personal messages into stationery, i.e. templates for a variety of forms. They can express themselves using styled and colored text, can drag-and-drop graphics right into the body of messages and documents, and can attach video and audio files with a click of the mouse.
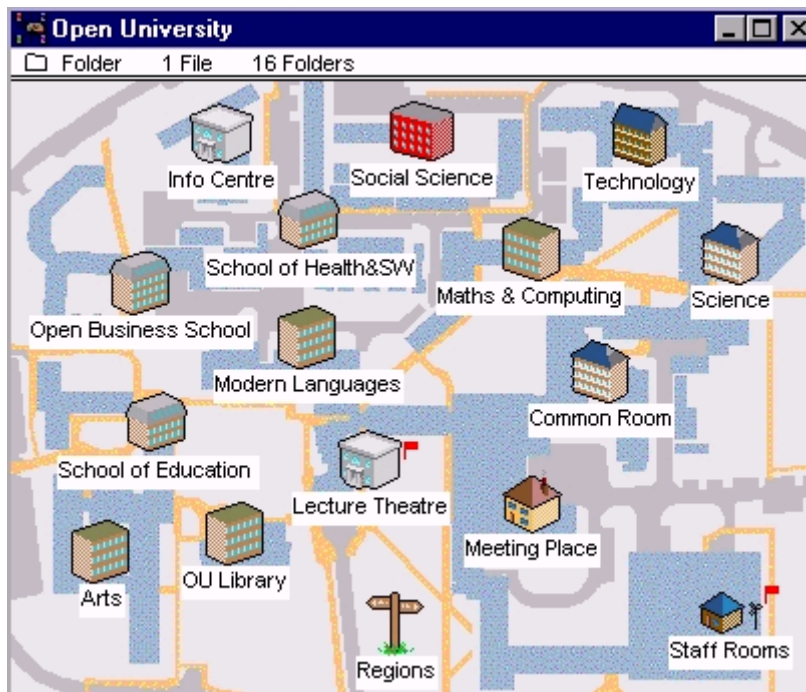
The Open University's FirstClass virtual campus

Ideal for Language Learning

The fact that FirstClass combines Audio mail, Collaborative mail and Electronic mail, in one easy-to-use package makes it an exciting solution for language learning. Language students can send audio messages and hold live one-to-one or group online chats on topics of their choice to native speakers in other countries for the price of a local connection to the Internet. This will allow students to avoid the monotony of pre-recorded cassettes and videos and increase their learning rate by addressing topics of direct relevance and interest to them.

If a school has a partner or twin school in another country then they could create collaborative areas in which students from the two schools can communicate together about specific topics, e.g. an online collaborative area could be set up for fourth year students to participate in threaded discussions on 'The Effects of the increasing Ozone Layer Depletion'. In this way, FirstClass helps students to improve their written as well as their spoken foreign language skills.

Language students can also use online chat to participate in live chats with foreign students. Chat rooms
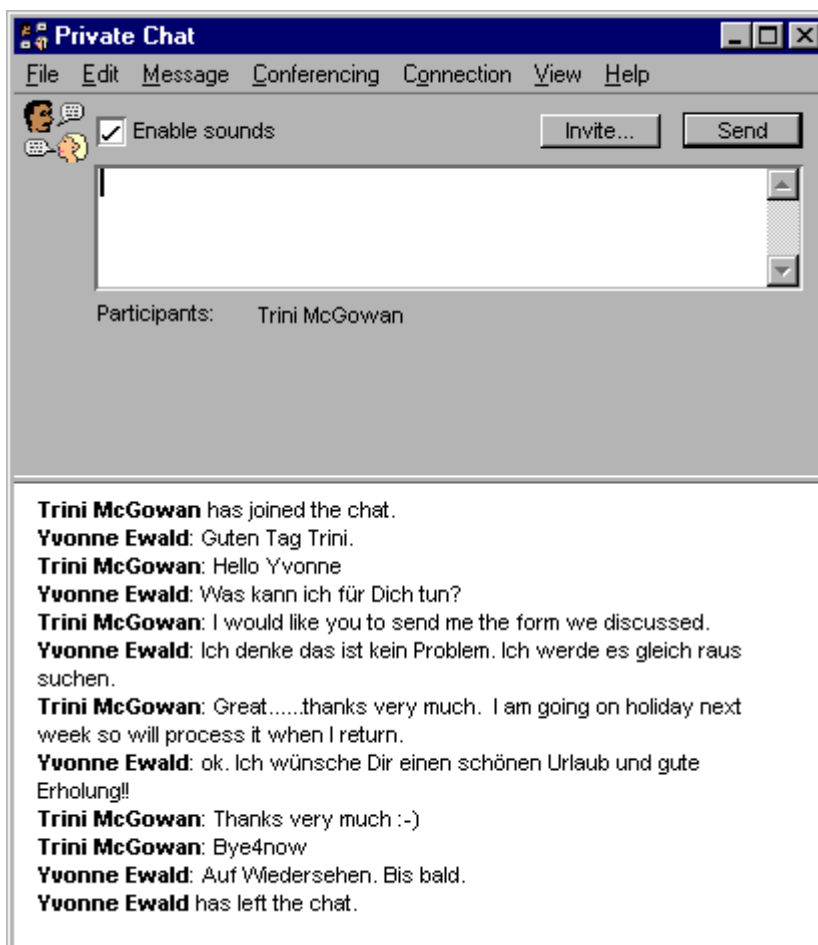
Example of a bilingual chat

can also be set up for group chats which could be scheduled for specific times. Above is an example of a bilingual chat between two students located in Germany and Ireland respectively.

Database Integration with FirstClass Rapid Application Developer (RAD)

Database programming is normally a complex and time-consuming activity. FirstClass RAD allows organisations to develop customised applications for their FirstClass environment quickly and cost-effectively. The FirstClass Rapid Application Development environment is a "Visual Basic" like tool that allows developers to rapidly develop applications that can access ODBC compliant databases like Microsoft Access, Oracle and SQL Server. FirstClass RAD comes bundled with FirstClass allowing all users to develop their own customised applications cost effectively, e.g. one of the teachers at Richmond School District has developed a **Staff Search** application that lets users search for the names and occupations of District Employees, a simple **Calculator**, a **Currency Converter** to do foreign money exchange calculations, and many more.

Easy to Administer

The Batch Admin feature allows for information to be updated in bulk, greatly reducing the time required to deal with hundreds of individual accounts. Server-to-server gateways allow a large organisation to link a FirstClass Gold system to any number of other servers, creating one complete messaging solution. And the new post office mirroring feature makes efficient round-the-clock backups possible.

Easy to Use

The intuitive nature of FirstClass means that very little, if any, training is required to get staff and students using it. Installation is easy, and its graphical interface adheres closely to Windows and Macintosh OS standards that computer users are familiar with, also offering simple methods of download and distribution, an attractive graphical interface, drag and drop, and customisable toolbars. The fast learning curve of FirstClass helps accelerate the adoption rate by the userbase.

Rock Solid Reliability

The FirstClass system has proven reliability. Whether used by a school board that supports 200,000 users on a single server or an advertising agency that transfers 10 GB of data a day, FirstClass is known and respected worldwide as a robust, reliable, secure tool that delivers unparalleled productivity to end users. The below customer quotes bare testimony to the rock solid nature of the product:

"We were amazed at how quickly everything was set up and running [with FirstClass]. On both Mac and NT systems, we've had absolutely no problem setting up and maintaining everything."

Mark Vehec, FirstClass Administrator and Education Computing Consultant, Duquesne University

"We have chosen FirstClass as the e-mail and conferencing solution for all our staff and all our students, both those on campus and those studying at a distance. We like FirstClass because of its industrial-strength reliability, integration with other e-mail systems, and ease of access over dial- up links and the Internet."

Professor Paul Bacsich, Sheffield Hallam University

Scalability

The FirstClass Intranet Server is considered to be the most scalable server on the market today with the ability to support over 100,000 users on a single NT server. The FirstClass server can currently accommodate 1,000 concurrent connections per NT server. It is also possible to split the users between multiple FirstClass Servers, as the online and concurrent usage grows. Multiple FirstClass NT servers use the server to server gateway feature that allows for e-mail exchange, directory synchronisation and conference replication, thus making multiple servers almost seamless to the user.

The Native FirstClass Client is considered to have a low footprint in comparison to other comparable systems such as Lotus Notes, Novell GroupWise and Microsoft Exchange. A web client is also available.

Server Hardware Requirements

The server hardware requirements are dependent upon the total number of concurrent users. The following are examples of the hardware configurations and usage from several different sites that will give some guidance for the hardware requirements:

SkoleKom, the Danish National Education Network's FirstClass system, has 350,000 mailboxes running on a single NT server machine, with 460 to 600 concurrent user connections during peak periods.

LearnLink, Emory University's FirstClass system, has a smaller user base with 23,000 mailboxes running on a single NT Server machine. At peak periods they are experiencing 700 to 750 concurrent sessions.

The Open University have 115,000 registered users across a range of servers. Below you will find a day's typical usage patterns for three of the servers:

Server 1:
Number of Users 37,000
Number of Logins 3,262
Number of Messages 6,643

Server 2:

Number of Users 25,000

Number of Logins 2,500

Number of Messages 3,599

Server 3:

Number of Users 24,392

Number of Logins 2,883

Number of Messages 2,989

Lower Total Cost of Ownership

One of the key benefits of implementing FirstClass is the significant savings in terms of Total Cost of Ownership that the educational institution will benefit from. The rock solid reliability and ease of administration of FirstClass translates into a direct reduction in the administration costs of running the system. Furthermore, if desired, sub-administration rights can be delegated to teachers and even students.

FirstClass does not require a heavy commitment of hardware resources to operate. It runs on modest hardware that often already exists in typical learning environments and embraces both new and legacy computer systems. The fast learning curve from both the user and administrator perspective results in minimal training costs. FirstClass Gold's intuitive graphical interface adheres closely to Windows and Macintosh OS standards that computer users will be familiar with and very little, if any, training is required to get people communicating and collaborating.

In summary,

Modest Hardware Requirements + Scalability + Reliability + Self-service Manageability = Affordable Ownership.

Proven Track Record in Education…Quotes from Existing FirstClass Customers

"One of the great things about FirstClass in a school environment is that it fosters real collaboration not just between everybody in the school but also with the students' parents. At a recent introductory presentation of FirstClass to our parent body, a number of parents requested that they too be provided with FirstClass accounts through the school and thus derive the same benefits as their children. All of the parents were very enthusiastic about the benefits that FirstClass offered and even suggested a number of extra uses it could be put to. Our school's adventure with FirstClass continues."

Kyrne Holloway, Director of Information Technology, Christ Church Grammar School, Australia

"In a busy school environment, it is essential that we have easily managed, reliable and stable communications and collaboration solution that continues to foil the best efforts of our budding hackers. FirstClass is the answer."

Chris Woods, Deputy Headteacher, Denbigh School, Milton Keynes, UK

"After having used FirstClass in the classroom, I have been really impressed with not only how easy it was for students to use and how quickly they adapted to an online environment but also the enthusiasm and motivation it provided for my students. It allowed me to set up a collaborative learning environment that I knew was secure, user friendly and flexible enough to meet their individual needs. This environment has worked with real success both within the class itself and also as a communication tool with other schools."

Lorrae Ward; ICT Learning Manager, Saint Kentigern College, New Zealand

"First of all FirstClass is very easy to manage. Second, with the openness of the interface we were able to achieve an integration with our [existing] system, that would not have been possible with competitive products. Third, we were able to offer with FirstClass a complete collaboration environment, which could be learned in one hour. In this ways the faculty using our solutions were able to grow without any difficulties from the level of exchanging information to collaborative learning and teaching."

Professor Luigi Marcolungo, Researcher, Department of Economic Sciences, University of Padua

"We use FirstClass for everything — email, the district schedule, administration, cafeteria menus and details of school policies. We're growing every day, and we wanted a system that would grow with us…Newsletters that were once on paper are now online. We're moving to electronic communications very quickly."

David Craven, FirstClass System Administrator, Cherry Creek School District, Colorado, USA

"As the largest local authority area in Western Europe with a widely dispersed population and lots of remote communities, we have come to rely very heavily on FirstClass to provide us with a platform for collaborative learning and co-operative work between staff and schools and everybody in the education community. We are delighted with it."

John Bruce, Highland Council Education Authority

"After researching computer communication for many years, we discovered FirstClass shortly after it was released. We considered it a major design breakthrough and have been using it ever since. It has an ease of use, friendliness and flexibility which are unrivalled. We now use it for over 140,000 students and are developing the rich possibilities of its Web interface for future courses."

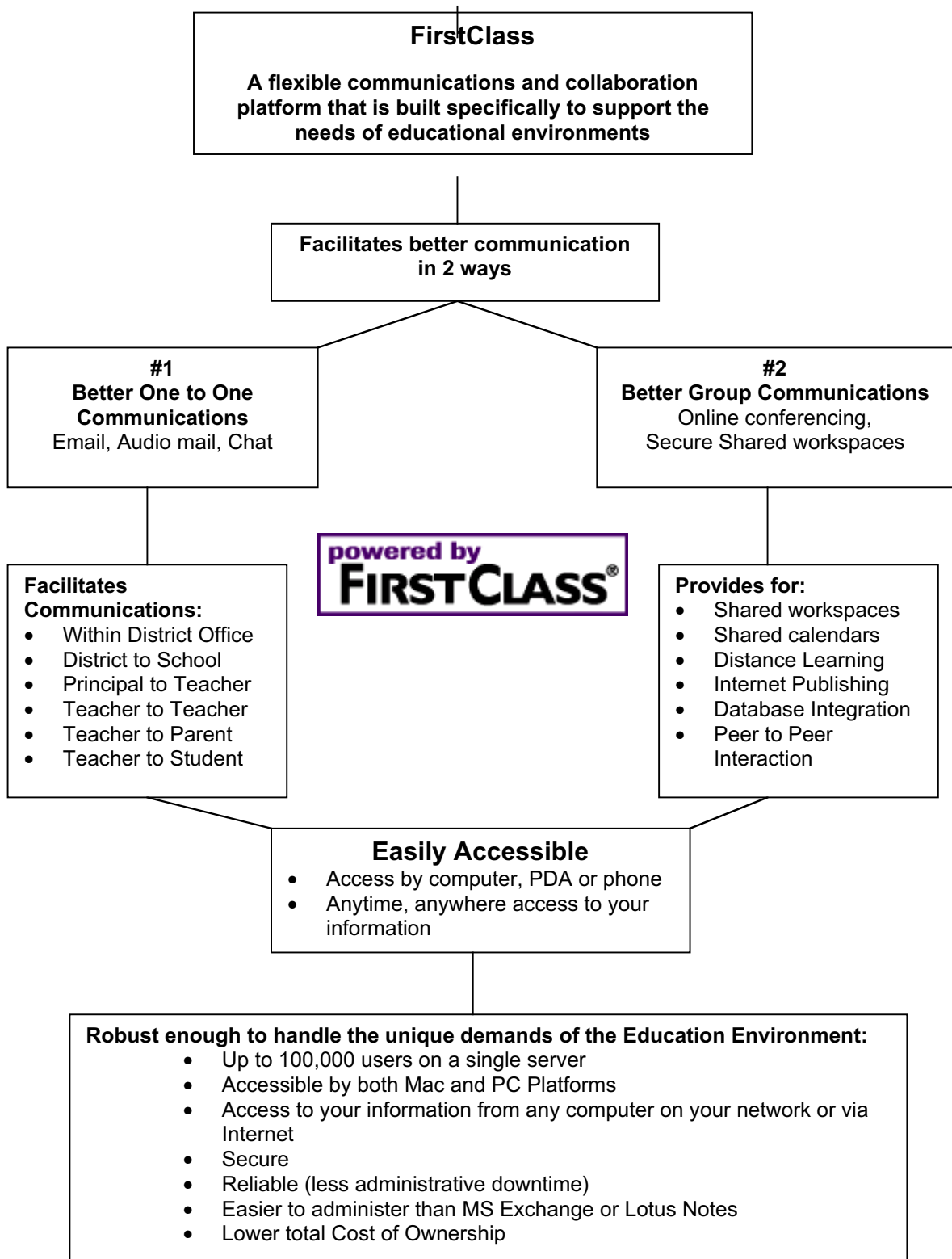**Dr Gary Alexander, Director, Electronic Media in Education Research Group, The Open University**

"FirstClass is a great product for education! We love the integration between Mac and PC as well as the ability to log into our FirstClass accounts over the Internet. It has revolutionised our internal communications and workgroup collaboration."

Jason Quilliam (MCPS), The American School in London

Some FirstClass education customers........

- The Open University
- Tamagawa Gakuen
- Monash University
- Denbigh School
- University of Innsbruck
- American School in London
- University of Karlstad
- Ecole Polytechnique
- Emory University
- University of Maine
- Bellevue University Online
- York University
- Rock Valley College
- Lake Washington Online
- American Université de Paris
- Skolekom (Danish School Network)
- Teeside University
- University of Plymouth
- University of Brighton
- University of Bristol
- University of Paisley
- Moray House Institute
- Anglia Polytechnic
- Kirkley Hall College
- Sheffield College
- Oxford College of Further Education
- East Haven School District, CT
- Ohio SchoolNet
- Scottsdale Unified School District, AZ
- Rochester Institute of Technology
- University College of the Fraser Valley, BC
- The German Institute of Distance Learning

- Deakin University
- University of Wales
- De Montfort University
- University of Sussex
- School of Homeopathy
- University of Stirling
- St. Andrew's College, Glasgow
- Nene College of Higher Education
- University of Newcastle
- Sheffield Hallam University
- Southbank University
- University of Herefordshire
- University of Twente
- Bilston Community College
- The British Study Group
- Northern College Aberdeen
- American School in London
- Yorkshire Coast College
- University of Aberdeen
- University of Highlands and Islands
- University of Central Lancashire
- University of Surrey
- University College of St. Marks and St. Johns
- Telford College Edinburgh
- The Sofia School in Stockholm
- University of Wisconsin-Madison
- Christ Church Grammar School

CENTRINITY

FirstClass Education Value Proposition Summary

FirstClass

A flexible communications and collaboration platform that is built specifically to support the needs of educational environments

Facilitates better communication in 2 ways

#1
Better One to One Communications
Email, Audio mail, Chat

#2
Better Group Communications
Online conferencing,
Secure Shared workspaces

Facilitates Communications:
- Within District Office
- District to School
- Principal to Teacher
- Teacher to Teacher
- Teacher to Parent
- Teacher to Student

powered by FIRSTCLASS®

Provides for:
- Shared workspaces
- Shared calendars
- Distance Learning
- Internet Publishing
- Database Integration
- Peer to Peer Interaction

Easily Accessible
- Access by computer, PDA or phone
- Anytime, anywhere access to your information

Robust enough to handle the unique demands of the Education Environment:
- Up to 100,000 users on a single server
- Accessible by both Mac and PC Platforms
- Access to your information from any computer on your network or via Internet
- Secure
- Reliable (less administrative downtime)
- Easier to administer than MS Exchange or Lotus Notes
- Lower total Cost of Ownership

School District Applications and Benefits

- School Districts, like large companies, have a need to communicate within and outside the walls of the organisation.
- Districts can use FirstClass conferences to conveniently increase communication frequency without increasing communication costs.
- Districts can post policy documents electronically. This allows greater access and reduces costs.
- Districts can offer groups the ability to work together across physical boundaries. This reduces costs.
- Teacher Training/ Staff Development (virtual)
- Curriculum Document posting
- More scalable than competitors
- Lower total cost of ownership
- Secure online environment for info, students and teachers.
- Helps districts make the most of their technology investments. Don't have to reinvent the wheel. It works on multi platforms and legacy machines
- FirstClass can be used as a distance learning tool
- FirstClass enjoys higher adoption rates than competitors

Educational Institution Applications and Benefits
(Principals and Teachers)

- Facilitates communication within schools;
- Shared conferences between teachers with common requirements
- Shared Lesson plans
- Shared calendars
- Posting supervision schedules
- Archiving and reporting announcements
- Internal and external messages for individual teachers can be left in non obtrusive manner and retrieved on phone of computer from home or school
- Principals can communicate messages to all staff
- Staff meeting info can be archived and shared centrally
- Communication with feeder or neighboring schools can be coordinated
- Easy web publishing
- Media and resources can be booked and shared within schools
- Fund raising applications

Teacher Applications and Benefits
(Teacher to student)

- FirstClass can be used to improve learning
- Distance learning
- Group work
- Online homework and projects
- Clubs and extracurricular activities can have shared online space
- Completely secure online environment.
- Student to student communication
- Remedial or enrichment content delivery
- Peer tutoring
- Online environment gives all students a voice and provides excellent assessment tool

School/Parent Community Applications and Benefits

- Allows schools to open the communication channel to parents and still maintain control of the contact points.
- Direct and secure online access to the home.
- Post homework and ongoing academic info for parents
- Send announcements (and track consumption of announcements)
- Facilitate and schedule face to face interviews with parents
- Communicate and promote special events
- Increase communication frequency
- Educate parents on key issues
- Provide secure online communities and workspaces for Parent Councils

SCHOOL

• Rangi Ruru Girls' School

Rangi Ruru Girls' School in Christchurch, New Zealand is an educational institution with an illustrious history and a promising future. The school has state-of-the-art facilities and equipment, including computer suites (with iMACS, PCs, scanners and printers), video editing facilities, a graphics technology workshop and a library complex with a highly sophisticated technology centre. It also has an Intranet environment run by FirstClass Collaborative Classroom Gold, an award-winning communication and collaboration software solution from Canadian-based global developer Centrinity Inc. FirstClass is a one-stop online environment for messaging and information sharing (multimedia-enriched email), time- and resource-management (calendaring) and synchronous and asynchronous forums (chat and conferencing).

Innovative technology fosters new habits

Barry Baughan, the school's network administrator, has nothing but praise for "the way FirstClass has empowered the girls to use the technology. The number of logins (over 250,000 in the first year) is proof of that," he says. Rangi Ruru's students have excelled at exploiting the extensive capabilities of this world-renowned software. In fact, it has changed their studying habits, now that they are able to log in to the system even outside school hours, consult the school calendar, read the latest news, check out their homework assignments, take part in discussions and visit websites suggested by their teachers. Parents also have access to the system and can feel like welcome guests in their daughter's educational environment.

Distributed administration

Staff members have made FirstClass conferencing part of their working lives. Each area of the school Intranet is managed by a different member of staff, with students also being involved. FirstClass' distributed administration and self-service environment means reduced administration costs and low total cost of ownership for the school. Because FirstClass seamlessly integrates Intranet and Internet functionality, teachers are able to post URLs directly in email messages and conferences to enable students to visit specific sites for educational purposes.

As information is added in the Intranet, it can be effortlessly updated to the web, with no knowledge of HTML. So the school has no need for a dedicated webmaster, and all members of Rangi Ruru's educational community can feel like they're active participants in a dynamic online world.

Polling with FirstClass Rapid Application Developer (RAD)

QuickPoll is a FirstClass RAD that enables the creation of an online opinion poll, and makes it possible to view the results in graphic format. Rangi Ruru uses QuickPoll for both staff and student opinion polls. Many of the issues that used to be voted on in staff meetings are now raised through a poll. Recently, students have been polled on everything from "Should there be a school bell between periods?" to "Will the principal do the firewalking?" QuickPoll is a free application developed by Michael Middlemiss, Centrinity's Customer Support Engineer for Australasia.

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DISTANCE LEARNING

• The Open University

The Open University has been successfully running a FirstClass system for staff and students since 1994. Currently The Open University is using FirstClass to enhance the collaborative online learning experience in over 150 of its online courses to over 110,000 students, with more than 16,000 online conferences (threaded discussion areas) in operation. On average, over 16,000 connections are made per day to the system by more than 8,000 different users. In addition, 20,000 mail messages are sent and more than 150,000 conference contributions are read every day. An increasing number of courses integrate online tutorials via FirstClass whereby students and tutors have to work together in teams.

FirstClass was chosen by The Open University because of its flexible and customisable collaborative environment. In the words of the FirstClass System Administrator at The Open University, "Asynchronous computer conferencing such as FirstClass is particularly useful for The Open University……….FirstClass helps the students academically by enabling them to discuss their course material, have queries answered and deepen their understanding through meeting other perspectives and it can provide vital mutual support and a feeling of community through social conferences."

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- **Deakin University**

Deakin University, one of the foremost Universities in distance education in Australia, won its first Australian University of the year award in 1995, for its innovative use of information technology in teaching. In that same year Deakin seeded a small project using FirstClass with 45 students from the Faculties of Education, and the Faculty of Business and Law as a computer mediated conferencing (CMC) environment for teaching and learning, and student support.

One of the major incentives for the development of CMC was the need to tackle the problem of isolation experienced by many of its distance mode students. The lack of access to peers, teachers and support specialists was seen as a major factor inhibiting student success. FirstClass usage as at March 2000 crossed all five Faculties and had grown to 22,000 registered users, with over 4000 conferences and private workspaces. Next year access will be provisioned to all staff and students raising the total number of users to 32,000, and eliminating many of the development and integration impediments, with other university systems.

Deakin's FirstClass conferencing environment has become a vibrant learning community, enabling the delivery of educational programmes, flexible and collaborative approaches to teaching, learning, research, support and educational development. Alongside extensive professional development, there have been many diverse outcomes, for students and staff. The environment has facilitated mainstream access and participation for teaching and learning, social and educational support, as well as academic and community collaboration for research and publication, at a multi-campus globally accessible e-university.

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TRAINING

- **OU and Research Machines**: **ICT Training - A new professional communications network based on FirstClass**

The Open University/RM consortium use FirstClass as conferencing and communications software for The Learning Schools Programme, a NOF funded teacher training programme, planning to train 150,000 teachers over the course of the programme.

The Learning Schools Programme (LSP) trains teachers on how to use ICT to enhance the teaching of curriculum subjects and has been designed by a team of experts from The Open University and RM. The programme has been well embraced by the education sector in the UK, with 100,000 teachers already signed up. The programme includes FirstClass conferencing software to link teachers from all over the country, encouraging them to compare notes and empathise with each others' triumphs and difficulties.

According to Robert Green, Learning Schools Programme Product Development Manager at RM, "Electronic conferencing plays a vital role within the Learning Schools Programme. Teachers do not currently benefit from professional networks - they tend to be isolated in the classroom. If teachers are going to be able to use the National Grid for Learning effectively, it's important that they have online contacts across the country. That's where early opportunities to network, via FirstClass are going to give teachers an advantage by creating an extended peer group."

The Learning Schools Programme adopted FirstClass, as the most effective solution, after evaluating a number of different alternatives. "We needed to find a system that would be easy to install, easy to use and would be stable on the wide range of computer equipment found in schools across the country," said Professor Bob Moon, Director of the Centre for Research in teacher Education, The Open University. "Because FirstClass Collaborative Classroom was developed for the education market, it is perfectly suited to the Learning Schools Programme. We've used FirstClass at the Open University for some years and because it works well on low specification technology - both PC/ Mac and users like it - we knew that it would be the best software for the job."

RM just recently announced an extension of their use of FirstClass until April 2003.

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NATIONAL SCHOOL NETWORK

- **SkoleKom**

SkoleKom, the National Collaboration Network in Denmark has been using FirstClass to provide training and collaboration services to teachers and students throughout the country since 1995. With over 350,000 teachers and students currently using their FirstClass system, this network provides an excellent example of the superior scalability, performance and suitability of FirstClass for online learning communities.

Every user gets his or her own FirstClass account and has access to about 2,500 open conferences (collaborative discussion forums) and 14,000 closed conferences in which all aspects of the Danish education system are discussed. Every school can have its own local conference within SkoleKom.

According to Paul Jacobsen, Head of Department for SkoleKom, FirstClass was chosen as the platform for their system because of the ease of use for the end user and administrator, the easy to manage structured collaboration system and the excellent performance and scalability of the FirstClass server.

Last summer, Uni-C (the computer centre at the Danish Ministry of Education that runs SkoleKom) launched SkoleIT, a project set up to help Danish teachers to learn more about IT. Already there are 20,000 teachers involved and a second FirstClass system was set up to run SkoleIT. SkoleKom recently signed a further three-year contract for FirstClass.

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SCHOOL DISTRICT AND COMMUNITY

• Clark County Public Education Foundation

Clark County Public Education Foundation, headquartered in Las Vegas, USA, has been using the FirstClass communications system since 1994 to link their 257 Nevada school system and the community together (ages 5yrs and older). They are the fastest growing school district in all of the US and FirstClass has been growing with them.

The InterAct™ Online Learning Community provides Clark County with an electronic means to nurture and strengthen individual connections, establish a sense of belonging, and encourage sharing. It has been said that the ideals of justice and compassion are nurtured in communities and that a community has the power to motivate its members to exceptional performance.

The InterAct™ Learning Community is now empowering thousands of teachers and students to collaborate with others in Nevada and across the world utilising the power of FirstClass e-mail and conferencing.

Users are reaching beyond web browsers into a world filled with rich, interconnected, project-based learning opportunities. Students and teachers are engaged in projects with schools in Scotland, Sweden and Germany; searching the web for information; and publishing their works. They are involved in relevant hands-on learning opportunities in collaborative conferences like SchoolLink and Global Village.

SchoolLink conferences provide students with areas where they can make electronic one-to-one contact with other students, collaborate on a newsletter or magazine, contribute their artwork to a virtual gallery, and share information on any number of topics.

Conference areas like "Tutor Online" offers an opportunity for students to post science-related questions that remain unanswered after using local school information resources. A Secondary Science Research Team or scientists working in the community can have access to this conference and answer student questions lending their years of experience and knowledge to classroom learning.

The Global Village conference seeks to develop community to community educative exchanges through the development of a number of shared public domain areas as well as individual e-mail. Resources on events, places, personalities, and documents from the United States and collaborating partners (UK, Sweden, Canada, Germany, and Scotland) are provided to students and teachers.

Other conferences can also become very valuable to student learning. For example, the "Pen Pals" conference provides students and teachers with a forum to communicate with key individuals who may be other students/teachers in foreign countries, or key representatives in the community (e.g.: Scientists from NASA) who can lend their knowledge to projects and/or focused discussions.

Conferences like "Student Projects" provide an area for students to share reports and projects with other students, developing a knowledge base for future discussions or project groups.

The power of FirstClass conferencing and e-mail have provided the Clark County Public Education Foundation with the necessary

"Scalable, flexible and collaborative environment to link students, teachers and the community in Nevada and other parts of the world, together on one FirstClass system."

This powerful user collaboration environment creates rich, viable and extensive learning opportunities for students and professional development opportunities for their teachers.

Judi Steele, Manager, Office of Development & Educational Improvement, Clark County School District, Tel +1-702-799-1041, steelej@ccsd.net

- ### Milan Schools Network

SiR (Scuole in Rete/Schools on the Net) is one of the largest education networks in Italy connecting schools throughout the province of Milan. Established in 1994, the network expanded in 1998 to 15 FirstClass servers located in various places throughout the province.

Three of them can currently be accessed via the Internet as follows:

www.falco.mi.it

www.sky.mi.it

www.tes.mi.it

Today the network has 10,000 daily connections, 5,000 messages per day, and a mean Post Office size of 2GB per server. In June '99 SiR reached 6,000 users and is currently experiencing a growth rate of 400 new users per month. More than one third of its users are students, one third are teachers and the remainder is composed of parents and professionals inside the school environment. The ratio between male and female is exactly 50%, which is not common in a telematic network of this size.

A group formed by teachers and in some cases non-teaching personnel is formed to administrate the system at each site. Students also tend to get involved in the administration at second level schools. Services offered by SiR include:

- Telematic citizenship - The possibility for users to own an email address and a mailbox, usable either in the Milan Intranet or the Internet.

- User participation in conferences on subjects regarding didactic or cultural issues. There are approximately 900 active conferences, most of which were proposed by the users.

- Web publishing - personal web pages can be easily and autonomously published on the web.

- Schools can activate public accounts in order to communicate with other institutions and/or to encourage the local community to take advantage of their on-line public services.

Qualified contents of the network include:

- Office of Education: Online information services managed by the Office of Education of Milan

- Webpages of schools: Participation of teachers, cultural and trade-union associations, information on teaching profession and disciplines

- Students: Autonomous conferences regarding a vast range of issues

- Telematic tutoring: Section dedicated to training and vocational guidance of students

- SiRWeb: Recently undertaken distance learning initiative dedicated to web publishing

SCHOOL DISTRICT

• Lake Washington Online

The Lake Washington School District includes 24,000 students in 41 schools, making it one of the largest in Washington State. The school district wanted to use FirstClass to tie together students, teachers and the community using email and conferencing capabilities. The district also wanted to simplify and minimise server administration and hardware maintenance, so students could be involved.

Today, the FirstClass server system is not only a model of technology leadership among Washington State schools but it also "Ranks as the largest completely student-run server system in the United States". Users range in age from 8-75 years, but the average age is 9-14 years. Overall, the Lake Washington system encompasses more than 600 conferences, both local and with information from the Internet.

OneNet, SchoolNet and LearnLink and smaller gated networks provide a wealth of learning tools and communication links. Typically, about 70-80 users are logged on at a time, a volume that does not even begin to test system capacity. There are 200 concurrent connections on a Mac server available.

The school district launched the server initially with 6,000 Macs, but now the installed base is more diverse, including hundreds of Windows-based PCs.

Technical Specifications and System requirements

Communication	Collaboration	Content
▪ Easy to use e-mail ▪ Message forms ▪ Prioritization of mail ▪ Mail sensitivity setting ▪ Receipts on read mail ▪ Address book & contact mgr. ▪ Built-in directory ▪ Formatting of quoted text ▪ File transfers in background ▪ Unsend ▪ Undelete ▪ Unread message tracking ▪ Unsent messages saved ▪ Hierarchical filing folders ▪ Automatic reply ▪ Automatic forward ▪ Personal stationery ▪ Message history ▪ Styled & colored text ▪ Spell checker ▪ Internet e-mail ▪ Internet mailing lists ▪ Multi-hop e-mail routing ▪ SPAM filtering	▪ Selective subscriptions ▪ Security & access control ▪ Appearance control by user ▪ Conference organization by user ▪ Moderation features ▪ File transfers in background ▪ Message history ▪ Threaded message display ▪ Easy thread navigation ▪ Unread message tracking ▪ Integrated with e-mail ▪ Multi-server replication ▪ Archival search abilities ▪ Live discussions ("chat") ▪ Public calendars ▪ Resource calendars ▪ Audio recording ▪ Auto reply to local or Internet mail ▪ Auto forward to local or Internet mail ▪ Email-enabled pager message forwarding ▪ Email-enabled cell phone message forwarding ▪ IP Notifier ▪ Palm Synching	▪ Drag-and-drop web publishing ▪ Drag-and-drop FTP publishing ▪ Multiple site host support ▪ Personal web sites ▪ Publishing of non-HTML content ▪ Statistics gathering ▪ CGI support ▪ Multi-language site support ▪ Customizable templates ▪ Drag-and-drop graphics files in messages and documents ▪ Attachable audio files in messages and documents **Application Development (RAD)** ▪ Rapid Application Development ▪ Based on Visual Basic ▪ Applications run on web ▪ Applications run in FirstClass
Access	**Administration**	**FirstClass Client**
▪ By Internet mail or news clients ▪ By web browser ▪ By FirstClass client software ▪ Over Internet connections ▪ Over IPX, AppleTalk LAN ▪ Over ISDN ▪ Over modem connections ▪ Work Offline	▪ Single server application ▪ Easy graphical administration ▪ Low administration overhead ▪ Administration over Internet ▪ Permissions & security ▪ Group assignment & control ▪ Batch administration ▪ Automatic old mail expiry ▪ Server-to-server gateways ▪ Delegable admin duties	▪ Easy to use ▪ Heavily customizable ▪ Per-user appearance preferences ▪ Settings stored on server ▪ User mail stored on server ▪ Available for Windows, Mac OS, DOS, VT100 and Unix ▪ Available in many languages

Server

Windows® NT, Windows 2000

- 80486 processor (Pentium recommended)
- Windows NT Server, Workstation 3.51 (4.0 recommended) or Windows 2000
- 12 MB available RAM (increase for busy system – 32 MB or more recommended)
- 12 MB free disk space, plus additional storage for mail and user data

Mac OS

- 68040 processor or PowerPC (Power Macintosh recommended)
- Macintosh System 7.1 or later (System 7.5.x or later recommended)
- 12 MB available RAM on 68K machines or 16 MB on a Power Macintosh (increase for busy systems – 32 MB or more recommended)
- Minimum 12 MB free disk space, plus additional storage for mail and user data
  Mac TCP 2.0.6 or Open Transport 1.1.2 (or higher)

Clients

Windows

- Windows NT Workstation, Windows NT Server, or Windows 95/98/2000
- 4 MB RAM above minimum operating system requirements
- Minimum 4 MB free disk space

Mac OS

- 68030 processor or better
- Macintosh System 7.1 (or later)
- Minimum 4 MB available RAM (6 MB for Power Macintosh)
- Minimum 6 MB free disk space

Server Capacities

Windows NT, Windows 2000

- Up to 50,000 users per server, depending on traffic
- Up to 1,000 concurrent connections
- 50,000 conferences, mail lists or internet newsgroups per server

Mac OS

- Up to 50,000 users per server, depending on traffic
- Up to 250 concurrent connections (for Mac OS 9)
- 50,000 conferences, mail lists or internet newsgroups per server

Please note: Server capacities and features are influenced by CPU speed and disk space.