

Software
Product
Description

PRODUCT NAME: EduLink Server for SCO™UNIX® SPD 54.87.00
Version 1.0

DESCRIPTION

EduLink is a customizable education framework designed for networked schools and school districts. EduLink provides facilities for document sharing, access control, electronic mail, and automation of workflow processes, including the setting and tracking of deadlines. Connections can be made to external systems using X.400 '88 or SMTP. Data security is provided by a centralized system configuration and system administration.

EduLink is built upon LinkWorks. It extends the standard LinkWorks by altering the database to include the following elements: an example school district organization; a number of specialized desks for educational users; a set of sample users; a number of educational objects such as a curriculum cabinet, and a test object; a sample workflow blueprint for policy planning; and the pre-encapsulation of several instructional and administrative applications.

EduLink is an open client/server product, developed to run in configurations that include different types of clients, servers, databases and network transport protocols. The client software is layered on a graphical, windows-based user interface. The clients require that the LinkWorks server software has been installed on a supported server platform, and that a network link has been established between client and server. A data base restoration action is required to add the EduLink elements to the database. It is this data base restoration that creates EduLink on top of the LinkWorks server.

All supported types of clients, servers and databases can then be configured into one heterogeneous EduLink configuration. User perceived differences between standard LinkWorks and EduLink that have been made via the data base changes are described in the text of this SPD.

Consistency, data security and management of the user environment are achieved by means of a relational database installed on the server. In this database all the information about each EduLink user's environment, and the attributes of each EduLink object, are registered.

EduLink provides users with a desk, using a graphical, windows-based user interface. EduLink provides twenty-two specialized desks. Objects are represented by icons or lines of text. Objects can be documents, filing containers or tools such as a clock or calculator. The open EduLink environment enables the System Administrator to integrate other personal productivity tools and applications. Actions are chosen from menus, selected from a button bar, or initiated by a drag-and-drop action.

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EduLink offers the user one virtual desk per EduLink cell. Since the information about the user's desk is kept on the server, there is no restriction for users to access their desk at any client within the same EduLink domain. The System Administrator can, if required, restrict the places where the user can login to a certain type of client, or even to a specific client. In certain cases it may be convenient to provide users with more than one virtual desk divided over more EduLink cells. In that case the user can have different items on each desk. However the mail inbox and outbox will be identical on each desk of that user. Documents and filing containers may be shared between the different desks of the user.

Each EduLink user belongs to a user group or "organizational unit". The organizational units can be set up so that they reflect the hierarchy in the class, school, or district. The structure of organizational units is shown on the screen as a graph, and may be manipulated (reorganized) by drag-and-drop. EduLink uses this structure for access rights, workflow and mail.

Features

- o Client/server software running in heterogeneous configurations
- o Object-oriented, icon-based user interface
- o Customizable object attributes
- o Customizable master documents
- o Sharing of documents and filing containers between users within the same EduLink domain
- o Document version control
- o Automation of workflow processes
- o Ability of users to use their desk at any configured client within the same EduLink domain
- o Possibility of different desks per user
- o Open environment, enabling the integration of many applications
- o Centralized system administration
- o Data security

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Generic Functions

Users can create, copy, edit, rename and delete documents and filing containers.

Documents and filing containers can be deleted by putting them into a (personal) wastebasket from which they can still be retrieved, or immediately destroyed with the shredder service.

New documents can be based on customizable templates, and users can set up their own templates for special types of documents, such as forms, tests, plans, and reports.

For each type of document or filing container, attributes can be defined. For example, a trip report could have the status attributes destination and expenditure, containing the name of the visited city and the value of the expense. Users can assign one or more keywords (from a catalogue of keywords) to a document or filing container. These can be used as search criteria when the document or filing container must be retrieved later.

Filing

Documents can be filed in a hierarchical structure of filing containers, namely cabinets, drawers, folders, and sections. Users can create filing containers on their desktops. Each filing container can contain filing containers of its own type and of lower levels. The system can be customized to provide additional or less filing levels as required.

Documents and filing containers can also be put into the archive. These documents and filing containers located in the EduLink archive can only be retrieved by using the Search facility.

Searching

The search facility can be used to find documents or filing containers, which are located on the user's own desk, on other users' desks in the same EduLink domain, or in the EduLink archive. Users will only find these documents or filing containers for which they have the appropriate access rights. The user's entire EduLink environment or parts of it, for example, one filing container, can be searched. A variety of search criteria can be specified, including keywords, a string of text, and deadlines in a workflow. A set of search criteria can be saved as a form for regular use.

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Sharing

A shared object is an object that is presented on more than one position. It can be presented at different locations within the user's desk, and/or on different users' desks. Users can turn documents and filing containers on their desks into shared objects by using mail, placing the document or filing container into a shared filing container, or by using the share option on the menu. All objects that are contained in a shared filing container are also shared.

Users who share an object all have an icon or line on their desk representing the object, and they can access it simultaneously. Documents that are opened for edit by a user are locked for edit by other users, but are still readable by these users. Changes to the document can be seen by all the users who share it.

Users can also register interest in a shared object, so that they will be notified when changes are made to it.

Version Control

Users can keep track of progress, and keep versions of the documents they work on without needing to copy or rename each version. A version of a document can be saved, read, edited, copied, or deleted.

EduLink provides automatic version control for shared documents. When a user opens a shared document for edit, a new version is created, and other users can still read the previous version.

Data Security

Users need to set the access rights for each created document or filing container. In EduLink there are ten types of access rights, ranging from Public (no restrictions) to Private (owner only). EduLink contains a Test access right designed for use in student testing. An access right describes which actions (such as delete, copy, read, search, mail) may be performed by which type of user, such as owner, user in the same or higher organizational unit. There are six types of users.

The System Administrator can change the actions that are allowed per type of user, or add completely new access rights. All actions a user could potentially do on an object are regulated through these access rights.

Mail

Mail between EduLink users and organizational units, within the same EduLink domain, is handled by EduLink's internal mail. In addition, mail can be sent to external users or users within other EduLink domains using X.400 '88 or SMTP, provided these are available on the server. In case of X.400 '88, EduLink is able to exchange mail with MAIL-bus 400 using the remote XAPI interface.

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Documents and filing containers can be attached to a mail message. These objects can be forwarded, copied, or shared (external mail will always be copied):

- o Forwarding an object means that only the recipient will have the original object. The Sender does not keep a copy of the object.
- o Copying an object means that the sender keeps the original object, and each recipient receives a copy of the object.
- o Sharing an object means that the same object can be accessed simultaneously by the sender and the recipient(s).

Users can send mail to other users, organizational units or distribution lists. The user can ask for a confirmation of delivery, indicate that a reply is requested, and set a deadline for the reply.

Distribution lists can include internal and external addresses. These lists can be stored in address books. Users can send a document or filing container to all distribution lists in the address book by dropping it on the address book icon.

If a user has multiple desks, the mail inbox and outbox are shared across these desks.

Users can reroute their mail to another user, during periods when they are absent from work. To reroute mail, a user nominates another user as his substitute, specify which types of mail have to be rerouted, and the dates when the user will be absent.

Workflow

EduLink supports workflow processes by enabling object routing, the setting of deadlines for different stages, and the signing of documents. Any document or filing container may be routed.

Users can define the flow of an object by attaching a pre-defined workflow blueprint to it. This is a sequence of stages through which the object must pass. Each stage is either a user's desk or an organizational unit. The user can provide instructions and can set a deadline for each stage. A Policy Planning Workflow Blueprint is provided as an example.

When users have finished a workflow stage, they can drop the object in the mail outbox on their desk. EduLink then automatically routes the object to the next user or organizational unit within the same EduLink domain defined in the workflow.

A workflow can branch into parallel flows. This automatically makes the object a shared object. A condition can be set so that an object does, or does not, enter a branch of the workflow.

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The System Administrator can create several blueprints that users can select from a list. Users can then attach a blueprint to an object or insert a blueprint into a larger workflow for an object.

Approval

Documents or filing containers can be signed at three approval levels: they can be initiated as "seen", they can be signed for approval, and they can be signed off. The latter changes the access right of the selected object to Final Form, which, with the default installation, means that the object can no longer be modified or deleted.

Pending box

Users can put documents and filing containers that are still under action into a pending box. For such a pending object a deadline, with a comment, has to be specified. When the deadline of a pending object has expired, EduLink displays a notification message, including the comment.

Import and Export

An external document located on hard disk, diskette, or file server can be imported and made into a document in EduLink. EduLink documents can also be exported to a hard disk, diskette, or file server.

System Administration and Configuration

The System Administrator controls the EduLink environment and each individual user's profile. EduLink provides several interactive, windows- based system administration and system configuration tools to do this.

The System Administrator maintains the following elements of the EduLink environment:

- o The organizational units
- o The users
- o The types of access rights
- o The types of objects that can be handled, with their associated icon, application, and attributes
- o The master documents, templates used when new documents are created
- o The types of filing containers and their hierarchical structure
- o The addresses of EduLink users and external users

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- o The blueprints that users can assign to objects or include in workflows they define for objects
- o The catalog containing the keywords that users can associate with objects
- o The client workstations

The System Administrator defines the following elements of each user's profile:

- o The organizational unit to which the user belongs
- o The user's access rights
- o The user's right to perform system administration tasks
- o The session profile, i.e., hours the user is permitted to use EduLink
- o The workstation(s) the user is permitted to log in to EduLink
- o The user's initial desk and the tools the user can use (in addition to the default tools). The System Administrator can configure the following elements of the users' EduLink desk:
 - o The names and contents of menus. Menus and menu entries can be added, changed or removed.
 - o The action button bars for each window; buttons can be added or removed, the icons can be changed, and the sequence can be reordered
 - o The icons used for objects, in lists, and on the button bar
 - o The integrated applications available as tools on the desktop

STANDARD INSTALLATION

Digital recommends that a customer's first purchase of this software product include Digital Installation Services (or comparable services of Value Added Resellers (VARs) or Partners). These services provide for installation of the software product by an experienced Digital Software Specialist (or VAR or Partner).

For subsequent purchases of this product only experienced customers should attempt installation. Digital recommends that all other customers purchase Digital's Installation Services (or comparable services of VARs or Partners).

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Customer Responsibilities

Before installation of the software, the customer must previously have installed all requisite software and hardware.

HARDWARE REQUIREMENTS

Processors supported

- o All processors supported by SCO Open Desktop[™] Release V3.0 (SSA 32.57.03-x) or SCO UNIX System V/386 V3.2.4.2 (SSA 32.52.02-x), at least a 80386 microprocessor is required

Other Hardware Required

- o The networking hardware that is supported by one of the network software listed under software requirements
- o A QIC tape drive or a CD-ROM drive to load the software

DISK SPACE REQUIREMENTS

Disk space required for installation:

- o Root file system : 1 MB
- o All other file systems: 30 MB

Disk space required for use (permanent):

- o Root file system : 1 MB
- o All other file systems: 500 MB

These counts refer to the disk space required on the system disk. The sizes are approximate; actual sizes may vary depending on the user's system environment, configuration, and software options.

SOFTWARE REQUIREMENTS

On the SCO UNIX server, EduLink is layered on one of the following combinations:

- o SCO Open Desktop[™] (SPD 32.57.xx), including:
 - SCO TCP/IP (integral part of SCO Open Desktop)
- o SCO UNIX System V/386 (SPD 32.52.xx), and
 - SCO TCP/IP (SPD 32.56.xx)

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- o SCO UNIX System V/386 (SPD 32.52.xx), and
 - Base System Management (SPD 42.86.xx)
 - TCP for DECadvantage (SPD 42.11.xx)

The following database package:

- o INFORMIX[R]-OnLine Runtime

This EduLink Server software requires a connection with at least one of the following EduLink Client software:

- o EduLink Client for Apple[R] Macintosh[R] (SPD 54.88.00)
- o EduLink Client for Microsoft[R] Windows[™] (SPD 54.88.00)
- o EduLink Client for IBM[R] OS/2[R] (SPD 54.88.00)

ORDERING INFORMATION

CD-ROM Package

CD-ROM Software Package QB-395AA-AA which includes QL-395AW-AA (License), and QA-395AA-H8 (includes CD-ROM, LinkWorks UNIX Installation Guide, LinkWorks System Administration Guide, LinkWorks System Administration Reference Manual, and EduLink Installation Guide)

QL-395AW-AA, License-only Kit

QA-395AA-H8, Software Media and Documentation-only Kit (includes CD-ROM, LinkWorks UNIX Installation Guide, LinkWorks System Administration Guide, LinkWorks System Administration Reference Manual, and EduLink Installation Guide)

QA-398AA-GZ (System Administrator Documentation-only)

QA-398AB-GZ (User Documentation-only).

QICtape Package

QB-395AA-AB QICtape Software Package which includes QL-395AW-AA (License), and QA-395AA-HP(Media and Installation Guide, Systems Administration Guide, and Systems Administration Reference Manual)

QL-395AW-AA, License only

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QA-395AA-HP, Software Media and Documentation Only Kit (includes QICtape, LinkWorks UNIX Installation Guide, LinkWorks System Administration Guide, LinkWorks System Administration Reference Manual, and EduLink Installation Guide)

QA-398AA-GZ (System Administrator Documentation Only)

QA-398AB-GZ (User Documentation Only).

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SOFTWARE WARRANTY

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