

## PeerLink™

### **How do you get you're your team members to work separately, or to work better?**

Historically, providing project files to every team member was done through email attachments, uploading documents to an FTP site for retrieval, using a document management solution as a centralised data repository, and more recently, through document sharing services offered on the Internet. However, each of these solutions has its own limitations.

- How do you ensure that when one person is updating a file, another person is not simultaneously making changes and creating version conflicts?
- How do you ensure that team members are working on the most up to date files, regardless of where they are?
- How do you share large project files over a slow connection link and do it securely?

With these challenges in mind, PeerLink was created to provide seamless document collaboration capabilities built around traditional file server management processes.

File servers utilising the PeerLink solution will benefit from these capabilities:

- Choose which folders you want to share and with whom on a folder by folder basis. Shared folders will automatically replicate to only those file servers you designate.
- Shared folders will have real-time replication so changes made anywhere propagate to all other locations.
- Files being edited at any location propagate a file lock (to prevent version conflicts) at all other locations. All file transfers are secure and encrypted via SSL.
- Only changed portions of a file are replicated. Because all files are replicated, large project files are accessed instantly via local speeds.

### **Business File Sharing**

- Instead of using email, FTP, or a centralised file repository, PeerLink ensures that your project files are always up to date on every file server through real-time file replication.
- Version conflicts are prevented through distributed real-time file locking ensuring that only one person can edit a file at a time.

### **Secure File Sharing**

- PeerLink has been designed with focus on providing secure file sharing and collaboration.
- Using SSL to securely transfer a file to the collaborating locations, or to propagate file locks when needed, you can rest assured your data is secure.

### **Managed File Transfer (MFT)**

- PeerLink provides Secure Managed File Transfer between two or more locations.
- Transfer files with your in house team members, partners and/or customers.
- Fast local file access Prevent version conflicts
- Secure file sharing
- No change in end users' processes

## How PeerLink works

PeerLink is an enterprise-level, real-time, multi-directional, distributed file locking and synchronisation technology that ensures the same data exists on all participating servers regardless of where changes occur, and prevents users from accessing files that are currently in-use by another user in the session.

A file collaboration session consists of two or more participating servers, and a folder hierarchy called the Watch Set, located on each server which will be kept synchronised by propagating file locks and modifications to all participating servers in real-time.

PeerLink has local and remote characteristics that form the basis of a distributed application framework.

PeerLink installations are composed of 3 primary components:

- **The Hub** is the central component of the PeerLink framework. All PeerLink solutions are installed, configured and started at the Hub.
- **The Broker** makes up the central messaging system that supports PeerLink applications. The Broker provides the core communication facility that connects the Hub and Agents in a PeerLink collaboration environment.
- **The Agent** is a lightweight component that is installed on a networked host that enables it to participate in a PeerLink collaboration environment.

## Using PeerLink

### Step 1: Session Start

At the start of a file collaboration session, PeerLink requests to scan each participating server's Watch Set for file content. The scans are performed at the Agents and results are dispatched back to the Hub for merging and file conflict resolution. Transfers are then issued to the Agents to synchronize their servers' folders. Once complete, the Agents are directed to start detecting access and change events on their respective servers.

### Step 2: File Lock

Files will be opened by users during the course of a file collaboration session. When a file is loaded into an application to be modified, the PeerLink Agent detects the event and notifies the PeerLink Hub of the activity. The Hub then issues a lock event for each of the remaining (target) analogous files across the session. Only one source instance is allowed for any given opened file in a session.

### Step 3: File Transfer

When an opened source file is closed with modifications, a synchronising transfer request is issued. The session first acquires a lock on the source file to facilitate a stable transfer. The locks on the target copies are preserved during the lock transition at the source. The revised source content is propagated to the target instances and the locks are released. Transfers are conducted among participating Agents and coordinated through the Hub.

## Requirements

The PeerLink Hub and Broker must be installed on a highly available Windows 2000, 2003 or 2008 server with at least 2GB of RAM and must have 1GB of RAM dedicated to the PeerLink applications. All Agents must have network access or internet connectivity to the Hub & Broker server.

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