The 2Share Centers: InfoCenter and WorkCenter

2Share users use two main "centers," InfoCenter and WorkCenter, to access information sources, then assemble and share the information as shown in *Figure 1-1* below.

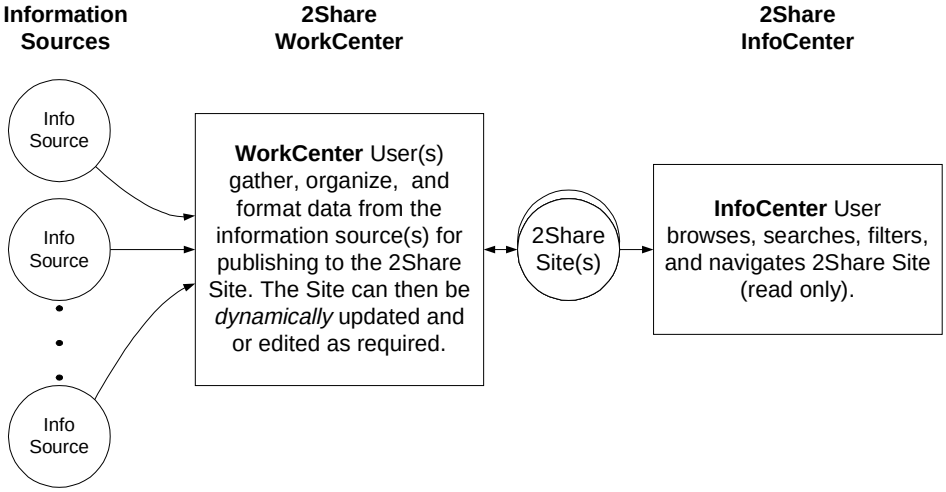

Figure 1-1 Information Assembly and Sharing using WorkCenter & InfoCenter

The following describes the centers' hierarchy and option modules from the users point of view. *Figure 1-2* below shows the two centers under 2Share.

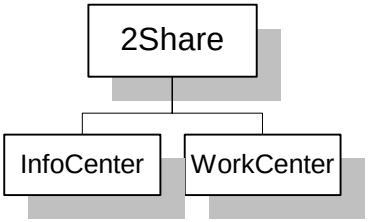

Figure 1-2 InfoCenter and WorkCenter, Two Main Centers

Each center displays various modules and functions, typically activated when the user clicks a button or selects a function.

2Share's InfoCenter

The **InfoCenter** allows users to browse, search, filter, and navigate 2Share Sites (read-only). *Figure 1-3* below shows the structure of the InfoCenter modules. The InfoCenter's button display is shown in *Figure 1-4*. (For details on how to use these modules, see the *2Share User's Guide*.)

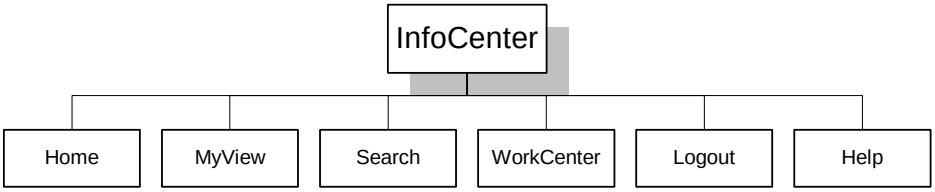

Figure 1-3 InfoCenter Modules

Figure 1-4 InfoCenter Module Buttons

Home

Clicking *Home* brings up the start-up site window in the 2Share InfoCenter. The *Home* page is customizable.

MyView

Clicking MyView invokes the user's *personal* home page (customizable for each user) that shows only 2Share Sites of interest to that user. MyView lets users specify which sites to display.

Hierarchy of 2Share Containers

The most familiar container is the 2Share Page. (See *Figure 1-8* below.) When requested by an end-user, a 2Share Page *dynamically* generates an HTML file for display in a web browser. The content items assembled on a 2Share Page may be Word documents, Excel Spreadsheets, PowerPoint slides, the result sets of an SQL query, etc. The HTML will display each content item as follows:

- converted to HTML format
- as a clickable link that downloads the content in its original format
- or both.

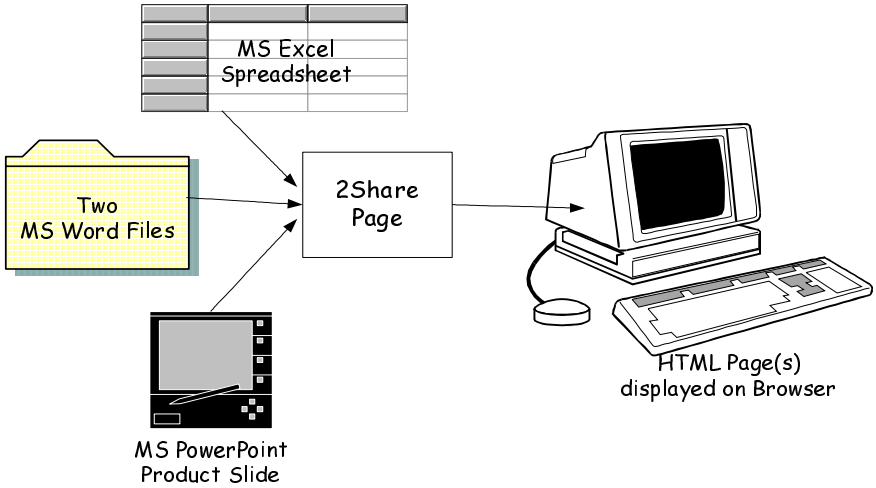

Figure 1-8 Various Content Items Composing a 2Share Page

Figure 1-9 below shows the 2Share container hierarchy: 2Share Folders, Sites, and Pages. These items are the "containers" used by 2Share to organize information.

Anatomy of a 2Share Site

Sites are the fundamental unit of organization and communication in 2Share. Thus, it is important that you understand the life cycle of a site. A site augments the power of an individual page by providing context, cohesion and continuity. *Figure 1-11* below summarizes the life cycle and components of a site. All the terms, except for versions, have been discussed in preceding pages.

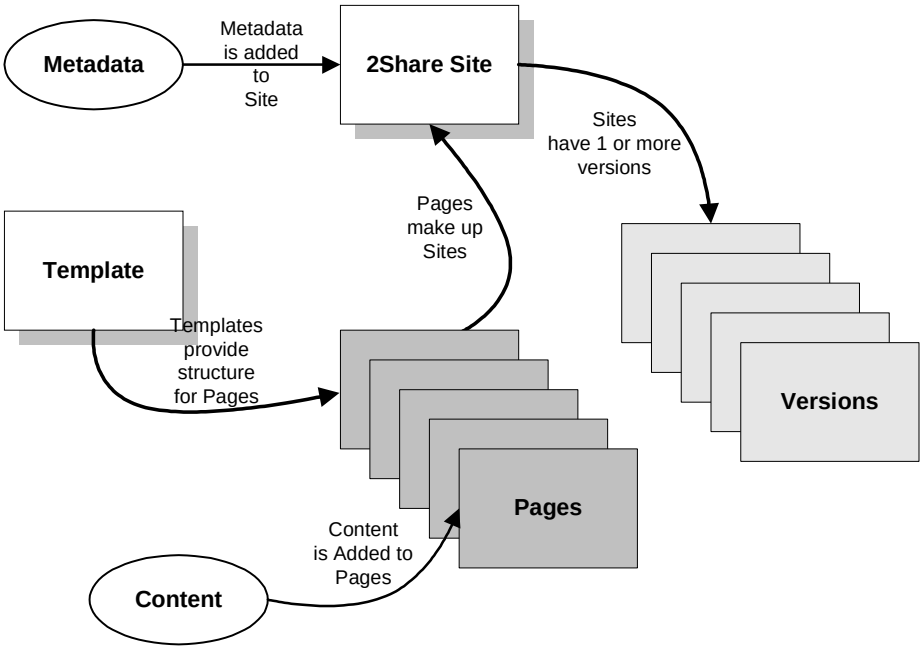

Figure 1-11 Life Cycle of a Site

Figure 1-17 also shows the relationship of templates, pluglets, pages, and content items, and the *roles* that can perform each function. Note: different templates, page names, pluglet types, and actual content items could be used.

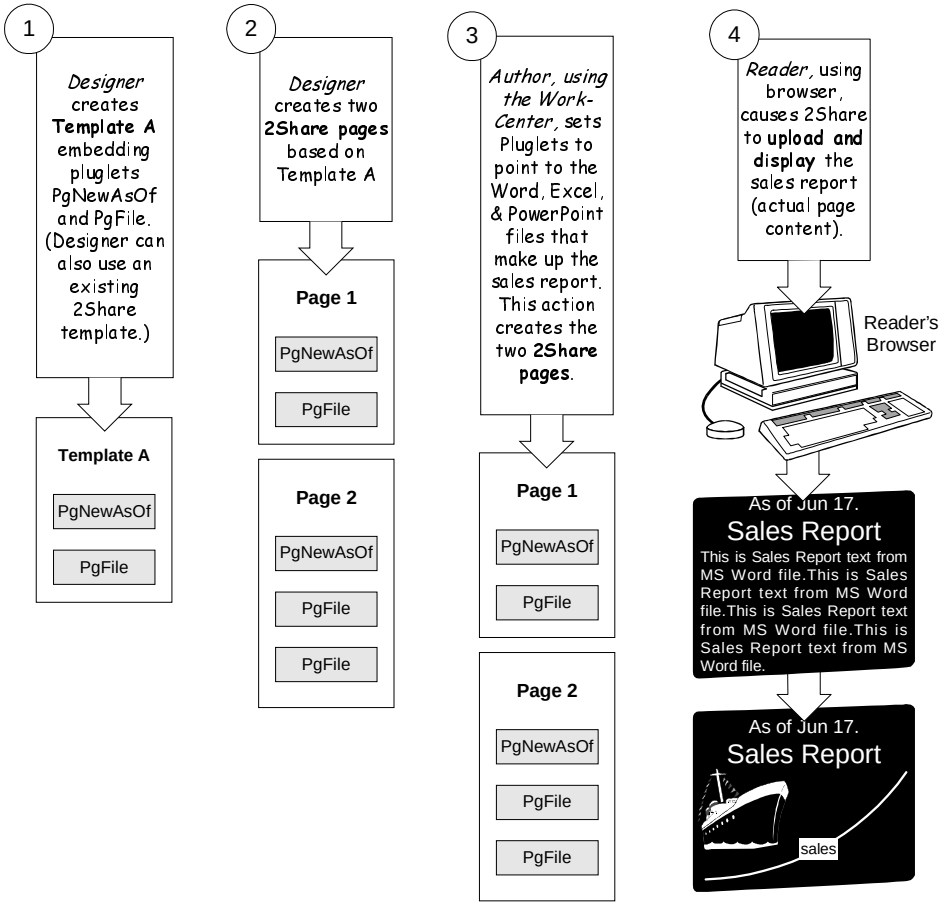

Figure 1-17 Template Determines Browser's Display

Referring to *Figure 1-17* above, after creation Template A could be used to create any number of 2Share Pages. PgFile could point to any MS Word, MS Excel, or PowerPoint files.

CPU Load

The load on the CPU should never exceed 50% except in peak load situations. It is close to 100%, it should be considered a problem. In peak load situations, 80% should be considered normal. When the load on the CPU is considered abnormal there are several other parameters to check, as shown in *Table 5-3* below.

Table 5-3 CPU Load Tuning Parameters

Tuning Parameter	**Action**
Network Traffic	Check network traffic on any connected network segments. If the traffic on the network is abnormal or close to peak loads, the server may be overloaded with pending requests or replies. Moving to the next level of network topology in the previous section may help.
Database Connections	If this occurs on the 2Share Server and there is adequate network bandwidth to the client side, this may indicate a backup to the database. Increasing the number of connections to the database may help. A number between 2-10 is considered optimal. The wide variation is due to page size and the variety of network configurations.
Network Card	If the network is in a normal state and the virtual memory is normal, it is worth checking the rating on the network card. This is hard to diagnose but it is sometimes an easy fix. Also, check that the NIC is rated at an equivalent speed as the network. For example, if the network is 100 Mbit Ethernet, check the network card's 100 Mbit Ethernet rather than 10 Mbit.
Virtual Memory	If the VM is also in an abnormal state increasing the amount of physical and virtual memory may help.
CPU Configuration	If all of the above parameters are at Normal levels, it is time to consider either a multi-processor system or a faster CPU. For the database server, both Sybase and Oracle take advantage of multi-processor configurations.

How to Measure Resources at the OS Level

Sometimes, users say, "The system is slow…" Could be. however, on occasion, you may have to show that the system is not responsible for perceived performance problems (that the system is not resource constrained). At the highest level, you must ensure that the system has sufficient CPU, memory, and disk resources. Normally, you measure these particular resources at the OS level.

To Track and Identify Use Levels of System Resources:

1. For Unix systems, use the administrator commands such as "sar," "vmstat," "iostat," or "mpstat."
2. For Windows NT, use the Windows NT Diagnostic utility under the Administration utilities to track.
3. Check *CPU* performance
   a. Determine overall CPU utilization.
   b. For multiple-CPU systems, verify that CPU load is balanced between the CPUs.

      Efficient systems will not have processes in queues. The more efficient the operating system and database, the more efficient the hardware becomes.
4. Check *memory* performance
   a. Check the overall memory usage.

      How often does the system have to save pages from memory temporarily to disk? Is page-swapping a bottleneck? If so, you may need more system memory.
   b. Check memory fragmentation.

      A utility like Norton Disk Doctor can assist in this area.
5. Check *disk drive* performance

To Modify Authentication:

1. Modify the `authentication.properties` file.

   The `authentication.properties` file defines information 2Share needs to connect to an LDAP server for authenticating users. The file contains seven properties, that are name/value pairs with "<-->" equivalent to an equal (=) sign. It looks like this:

```
servicename<-->2Bridge LDAP service
servicedesc<-->2Bridge internal LDAP service
servicetype<-->LDAP
java.naming.factory.initial<-->
   com.sun.jdni.ldap.LdapCtxFactory
java.naming.provider.url<--
>ldap//ldapserver.mzm.com.389
java.naming.security.authentication<-->simple
java.naming.security.principal<-->cn=?,
0=2Bridge.com
```

   The above properties have the meanings shown in *Table 7-2* below:

Table 7-2 Block of Seven Authentication Properties

Property Name	**Description**
`servicename`	Arbitrary text identifying block of properties to System Admin
`servicedesc`	Arbitrary text identifying block of properties to System Admin
`servicetype`	Always LDAP
`java.naming.factory.initial`	DO NOT MODIFY
`java.naming.provider.url`	URL of the ldap service on the network, including port number. MUST E CHANGED.

Table 7-2 Block of Seven Authentication Properties

`java.naming.security.authen-tication`	DO NOT MODIFY
`java.naming.security.princi-pal`	Provides a general template for user's distinguished name in the LDAP service. "?" is a placeholder for the name of the user being authenticated. For example, `cn=?, 0=2Bridge.com` causes 2Share to create a string, sub-stituting the current user's name for the "?". The whole string is passed to the LDAP server for comparison with the distinguished name. MUST BE CHANGED.

2. Modify lines 5 and 7 (bold typeface above) as follows.
   a. Modify the value of `java.naming.provider.url` to the address of your LDAP server.

      NOTE: The protocol is `ldap://,nothttp//.`

   b. Specify a port number (389 is the LDAP default).
   c. Modify the value of `java.naming.security.principal` to match the format of distinguished names in your LDAP server.

      NOTE: To use *multiple LDAP servers*, insert one block for each server into the authentication.properties file as follows:

   d. Insert one blank line (REQUIRED) after the current block, then,
   e. Insert, another block of seven properties.
   f. 2Share checks all blocks from top to bottom, attempting to find an LDAP service to authenticate the current user and password.

3. Repeat as necessary, adding one block for each distinguished name.

   NOTE: To include *multiple organizational units (ou) or multiple organizations (o)*, that use the same LDAP server, insert one block for organizational unit and organization into the `authentication.properties` file as follows:

   a. Insert one blank line (*required*) after the current block, then,

   b. Insert, another block of seven properties.

   c. Edit the `java.naming.security.principal` property with a different `o` or `ou` value (`ou` = organizational unit, `o` = organization).

      (Do not change the `java.naming.provider.url` property.)

   d. Repeat as necessary, adding one block for each organization or organizational unit.

4. After defining all necessary block(s), insert the desired authentication option (`internal_only, external_only, or external_internal`) as follows:

   a. Locate the initialization file in the 2Share install directory on the 2Share host machine.

      On Windows NT: `twoshare.properties`

      On Sun Solaris: `twoshare.properties`

   b. Open the `twoshare.properties` file with a text editor such as Notepad or VI.

   c. Modify the `auth.order` property for the desired authentication option by typing one of the following:

      ```
      internal_only
      external_only
      external_internal
      ```

5. Restart the web server.