



Newforma Project Center + Egnyte

More and more architecture and engineering firms coming to Egnyte have Newforma Project Center already in place. These customers want to reduce their on-premises IT infrastructure and move more functions to the cloud. These customers are likely to have a large amount of project data (20+TB) and utilize Newforma Project Center Server with a file system like Panzura/Nasuni or Windows File Server. By moving to Egnyte's Smart Cache SMB (5.0.7+) they can reduce the amount of on-prem infrastructure while still supporting Newforma Project Center (NPC).

Benefits of Newforma and Egnyte

A&E firms use Newforma Project Center for critical business workflows and project information management (email filing, RFI/Submittal tracking, and more) but may still be relying on legacy file infrastructure. Egnyte allows these firms to modernize their content experience across other areas while still maintaining support for Newforma Project Center allowing:

- Modernization of the other parts of the company while supporting critical project processes
- More/easier ways to interact with and produce content
- No VPN required for all processes outside of Newforma Project Center
- 2-way data sync (Newforma <- -> Egnyte) to drive deeper collaboration
- Reduce on-prem storage/reliance on on-prem infrastructure

Newforma use cases:

- RFI/Submittal tracking
- Send/Receive project data including large files
- Email Filing
- Indexed Search

Egnyte for AEC:

- Cloud-first, AEC-focused file server experience
- Secure external sharing and collaboration
- AI, content security, and content governance



Key Technical Components

Project Center Server – Hosts the Newforma Project Center database and is the hub of the system that all clients connect to

Newforma Project Center client – Primary end user interface where users get work done and access content

Info Exchange Server – Web based external sharing component of Newforma, typically on a separate server from Newforma Project Center

Newforma Indexing Service – this service scans and processes the files for indexing and OCR

Newforma Work Service – separate utility used to assist in the index processing which then returns the data to the Newforma Indexing Service

Egnyte Hybrid – another name for Egnyte Smart Cache with SMB

Newforma Service Account – Domain account used to run the Newforma Server services and also used for other processes such as email auto-file

Egnyte Service Account – Service account used to govern permissions of the Newforma system within Egnyte Note: Must be the same name as the above Newforma Admin account

Active Directory user accounts

Egnyte user accounts

Delegation – Newforma Enterprise connectors may require AD delegation to allow integrations to act as a service



Design Considerations

Re-pathing

Newforma Project Center converts drive letter paths to UNC paths (e.g. s:\projects\p123 gets translated to \\filesrv1\projects\p123). If DFS Namespaces are not in use, this means that all projects will need to be re-pathed when moving to Egnyte. There is a re-pathing tool within Newforma Project Center that can make these changes en masse. If DFS Namespaces are in use, no re-pathing or re-indexing is required.

Newforma Cloud

One of the requirements for Newforma cloud connectivity is CIFS delegation in Active Directory. CIFS delegation can only be applied to Active Directory computer objects. In this configuration, the computer object name would need to be used as the file server name portion of the UNC path for projects in NPC. If the customer is using DFS, the AD computer object would need to be used in the DFS configuration.

Managing Re-indexing (when necessary)

When a new project is added or a project data path is changed, Newforma Project Center will queue that data location for indexing. Re-pathing many projects at once will cause a resource intensive re-indexing operation.

Newforma Project Center Resource Consideration

Existing deployments may have the indexing resources optimized for daily use; therefore, this re-index event may take a significant amount of time. This can be mitigated by deploying more Newforma Work Services for additional indexing resources. The Egnyte Hybrid resources may need to be considered as well.



Egnyte Hybrid: Selection

Smart Cache SMB (SCSMB): SCSMB behind a DFS based namespace is preferred for most Newforma Project Center scenarios. This configuration consumes the fewest resources and is the simplest option from an administrative and user experience point of view (automatic user mapping, configuration of caching policies vs. manually selecting folders). During re-indexing operations, SCSMB does thrash the cache because it is designed to cache a small portion of the data, not crawl through the entire dataset. This may cause user experience degradation during the re-indexing operation and may extend the duration of the migration.

➔ Sizing Data Volumes for Smart Cache SMB:

There are many variables that factor into the optimal size of the cache to be used. For steady-state configuration (after indexing/re-pathing are complete) a calculation of active vs total projects can be used to estimate how much cache space should be configured for the Smart Cache. Example: For 1000 projects making up 10TB of data with 100 active projects (1/10th), a good starting point would be 1TB of cache space. Smart Cache statistics and reporting can be used to tune performance over time.



Storage Sync (SS): SS requires slightly more administrative overhead (manual folder pinning, more complex authentication) but performance is much better because all data is synced. This required more local resources and is limited to 16TB per SS instance. Data requirements are 2x during migration.

➔ Sizing of Data Volumes for Storage Sync:

Enough disk capacity to store a copy of all active project data needs to be configured.

SCSMB + SS: To minimize local resources or support higher performance for datasets greater than 16TB, a combination of hybrid devices can be used. Active projects can be hosted on SS for high performance and the rest of the data can be accessible via SCSMB.

➔ Sizing of Data Volumes for SS + SCSMB:

Customers can size for Active and Inactive project data using the methods above.



Picking the Best Hybrid

Critical Success Factor	Smart Cache SMB	Storage Sync	SS+SCSMB
Administration	Low	High	High
Resources	Low	High	High
Re-indexing Performance	Moderate	High	Mixed
Daily Use Performance	High	High	High

Email Filing

When storing emails, Newforma Project Center uses the subject line to name the stored files. Newforma Project Center replaces quotation marks in email subjects with a tilde. If the resulting file name ends with ~.msg or ~.eml, Egnyte is not compatible with this file name pattern. This causes Egnyte to quietly ignore the files as it interprets them as temporary files. Existing files would need to be sanitized (renamed) manually on the source before migration. New files matching this pattern will may become orphaned and require periodic manual renaming. Contact Egnyte for additional information on an alternative solution.



Summary of the Migration Process



Key Stakeholders for a Successful Migration

Partner	Role	Description
Egnyte	Presales Solutions Engineer	Provides technical expertise on Egnyte platform and integration capabilities
Egnyte	Professional Services	Offers implementation, configuration, and training services for Egnyte components
Customer	IT Administrator	Manages customer IT infrastructure and provides access and customer-environment guidance to Egnyte and Newforma
Customer	Newforma Administrator	Administers the Newforma Project Center platform including user access and project data paths
Customer	UAT	Team of users to conduct user acceptance testing to verify system functionality
Newforma	Product Support	Provides technical assistance for Newforma Project Center migration and platform issues

1. Egnyte Domain Configuration

Egnyte Professional Services (PS) team works with Customer to deploy, configure, and test the Egnyte domain to a basic level of functionality.

2. Newforma Project Center Health Check

Customer uses the VerifyInstallation tool to verify the health of the Newforma Project Center system and that service credentials are documented and functional. The customer can reach out to Newforma Support if there are any questions.



3. Data Migration Seed and Deltas

The Egnyte Professional Services team works with Customer to plan and execute data migration including running delta syncs at intervals to allow for logistical coordination of next steps with minimal user impact.

4. Deploy Egnyte Hybrid

Egnyte PS works with Customer to deploy, configure, and test the Egnyte Hybrid VMs determined necessary in the Solution Design.

- A. For Storage Sync – begin syncing data
- B. For Smart Cache SMB – configure and enable cache warming policy

5. Configure a DFS namespace (if not in place)

- A. Re-index on existing local storage

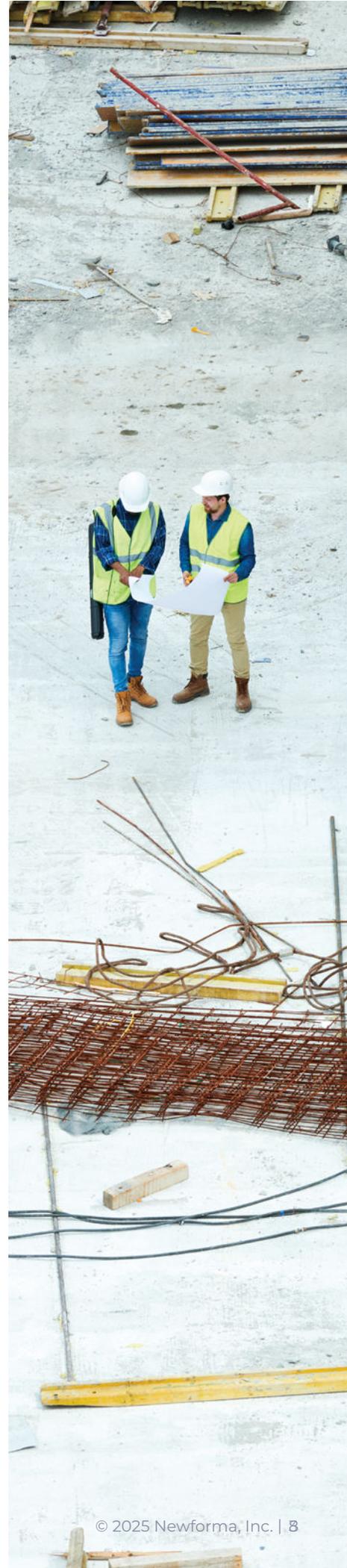
6. Test Newforma Project Center Access and Indexing

Re-path a test set of existing project(s) and test all components.

7. Cutover

Steps to minimize impact during cutover from Newforma Project Center with a legacy file server to Newforma Project Center with Egnyte:

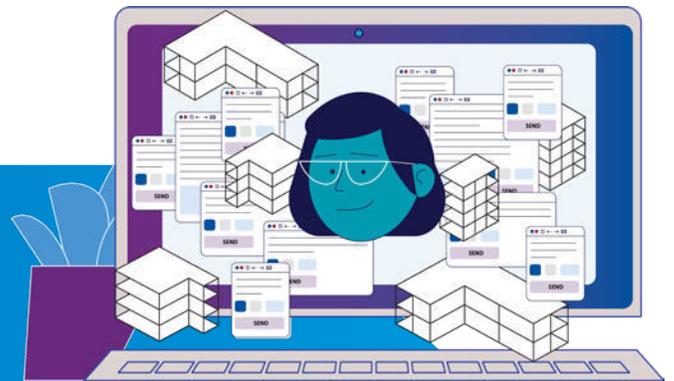
- A. Complete final Egnyte Migration delta sync
- B. Apply Permissions to data in Egnyte
- C. Stop Newforma Project Center Indexing services
- D. Restrict/disable access to source paths
- E. Re-path projects (if necessary)
- F. Restart Newforma Project Center services



8. Testing and UAT

The index will take some time to rebuild. Utilize a test script to test remaining items. After indexing has completed, different user scenarios should be tested as appropriate including but not limited to:

- A. In-office user
- B. Remote user connected to VPN
- C. Access to project content from Egnyte Desktop App
- D. Search using Newforma Project Center index
- E. Search using Egnyte index



Conclusion

With some careful planning and execution, AEC firms using Newforma Project Center and Egnyte together can unlock significant productivity in their highest value activities while reducing their IT complexity and overhead. Project data tracked and managed in Newforma becomes accessible using Egnyte's robust AEC content cloud capabilities.

Additional Considerations

This solution is designed with Newforma Project Center being the only system accessing dedicated Egnyte Hybrid devices. Additional workloads would need to be assessed and validated separately. Using the same Hybrid for additional workloads may impact performance or be unsupported.