

# Common Challenges With an IBM FileNet P8 System

## AND HOW TO OVERCOME THEM



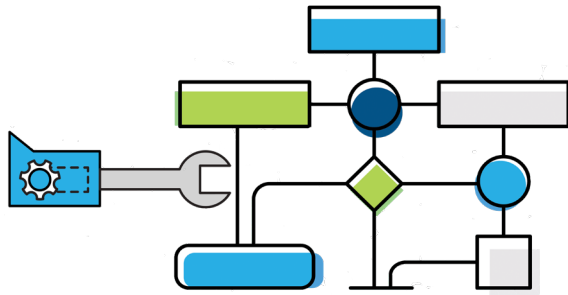
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Architecting, procuring, deploying and configuring an enterprise content management (ECM) system is a big undertaking, and once complete, many organizations feel “ECM exhausted.” They think that the system is “up” and should stay that way without much attention.

Yet the reality of the business environment we function in today is that change is a constant event. **That dynamic will almost immediately create new challenges that your ECM system will need to incorporate.**

This is the operation, maintenance and support phase of your system lifecycle – generally the longest phase your system will experience – and therefore worthy of some genuine planning. However, many organizations struggle to deliver the necessary focus on this portion of the system lifecycle.



To shed some light on the types of challenges an organization can face with an ECM system, below is a list based on my experiences with a mid-sized State government utilizing an IBM FileNet P8 system. My hope is that some of these challenges strike a chord with you and that the suggestions I offer could be of assistance to your organization.

## CHANGE MANAGEMENT

Sometimes referred to as technology change management or IT change management, this is **the process of recording, documenting and approving the implementation of changes** in your computer systems. If you’re involved in change management then you’re probably in the IT department within your organization – but this challenge reaches far beyond the IT folks which is why **anyone using your systems should be aware of the impacts of change.**

### The Challenge

In a large organization with diverse environments, silos of management, and a complex and political organizational structure, there are going to be varying degrees of “acceptance” of rules for managing change.

Frequently I see this result in **poor communication about the what, when and where of changes**, which ultimately leads to some sort of system degradation. The vast majority of system interruptions we see can be attributed to a breakdown in the change management process.

As the administrative body for the IBM FileNet P8 system you are limited to what you can control, so you may or may not be informed of a change occurring that will impact your system. **What can you do to reduce the potential negative impacts of this?**

### The Solution

You cannot control everything, but what you do control is access to FileNet. With a bit of determination and effort you can use that as a lever to help you minimize the impacts of changes outside of your control.

- **Document the following information in detail.**
  - Architecture diagram of the environment including...
    - FileNet servers
    - LDAP servers
    - Database servers
    - Storage devices
    - Web servers
    - Load balancers
    - Firewall configurations
    - Ports
  - Installation parameters
    - Software location (the actual software media used for installation)
    - Software versions
    - Software installation directories
    - User accounts used for installations
    - Configuration parameters
    - Screenshots of current configurations (run book)
  - LDAP security
    - Admin users/groups
    - End users/groups
  - Database configuration
    - Schemas
    - Connection information
    - Database users/groups
  - Storage configuration
    - Types of storage
    - Connection information
  - FileNet server configuration
    - Admin names/passwords
    - Mount points/mapped drives
  - FileNet object store configuration
    - Database
    - Security
    - Document classes
    - Property definitions
    - Workflow
  - FileNet storage configuration
    - Types
    - Connection information
  - Disaster recovery procedures
  - Startup/shutdown procedures

- Maintenance schedule
- Information required to open a PMR with IBM
  - Site ID
  - System configuration
- Software versions



- **Document the process for how outside entities interact with FileNet.** Create forms and templates that you can give to outside entities when they approach you wanting access to FileNet.



This may be as simple as a document explaining how a user accesses the system, but goes well beyond that to include spreadsheet templates or other documentation that identifies document classes, property templates, security roles and permissions, and other FileNet P8 objects that will be created to support the business solution.

- **Lead by example.** Make sure your entire administrative team follows your own processes. Your organization **needs administrators at all levels** (from directors to entry-level admins) to appreciate these standards and adhere to them.

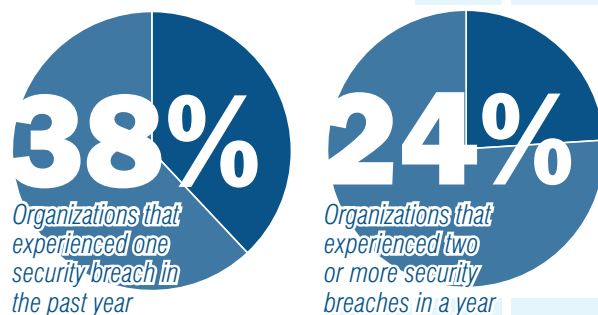
*The ultimate beneficiaries of your efforts are your customers who will be using the system - it's your job to persuade their leadership of the value of following these rules.*

- **Enforce your processes.** Empower your administrative team to say “No” when they encounter outside entities that want to “skip” or short-cut the process. The ultimate beneficiaries of your efforts are your customers who will be using the system – it’s your job to present and persuade their leadership of the value of following these rules.
- **Leverage organizational policies and procedures.** If your organization is a government entity or interacts with government, there is a large set of compliance policies and procedures that have already been documented and adopted. Even if you are not a government entity, there are going to be like-minded stakeholders across your organization that share your perspective on change management. Use the body of rules to support your efforts and persuade others to exercise change management best practices.
- **Communicate to everyone about the timing and nature of changes.** Provide a detailed description of the change so others can consider the impact on their systems and users. Be sure to communicate in a number of different ways: email, message boards, conversations in the hallways, meeting announcements, etc.
- **Implement accountability and consequences for not following standards and procedures.** Reward teams that adhere to the process, not teams that strive to be the successful “cowboy” who “gets it done.” This is counter-intuitive to many administrative managers – they may not have the technical experience to understand when this is happening, but it is important that they learn to recognize the difference. Rewarding bad behavior will reinforce it, and long-term your team will struggle to keep your system up and running.

- **Persevere in the process.** It’s easy to get frustrated with this process or maybe even feel hopeless, but over time the benefits of change management will become self-evident to the decision-makers that benefit from it. Stick with it and you will see your organization evolve to depend on it.

## SYSTEM SECURITY

In a [recent AIIM survey about information security](#), an overwhelming percent of respondents admitted to experiencing a security breach in the past few years, with some organizations having multiple breaches in a year.



No organization wants to be in the news about a security breach which is what makes it a huge focus for organizations managing data. But, as the statistics show, maintaining security is challenging.

### The Challenge

What makes security so difficult is that **it’s dynamic and there are people constantly trying to undermine it.** To keep up with its dynamic nature, organizations make their own security measures dynamic – a natural reaction. Even though this is a must, its dynamic nature causes more challenges because it impacts the maintenance schedule. Trying to keep up with a constantly-changing environment is hard!

## The Solution

If you're someone at your organization trying to change or improve the current security measures, the good news is that you'll likely have everyone's attention. Stating that anything is a security risk is a sure-fire way to get their eyes and ears. Here are some suggestions for improving your current measures:



- **Enforce password rules.** By now everyone should be aware of the need to create complex passwords and the seriousness of password security. Despite this, you may still walk by someone's desk and see a sticky note with a phrase and some numbers stuck to their computer monitor... As an organization you need to educate your users and systemically enforce good password practices. Standards for strong passwords are changing and password-cracking techniques are becoming more powerful and sophisticated. Stay current with the evolving standards for preventing unauthorized access.
- **Consider implementing dual authentication.** Implementing dual authentication through an integrated single-sign-on solution can greatly enhance the security of your FileNet system. Dual authentication requires users to provide a second password to your system, typically a recently-generated password that is only be available to the actual user.
- **Maintain security configuration in a master document outside of the system.** Avoid treating the system as "self-documenting" for configuration. This approach can be especially dangerous for security configuration because if inappropriate changes are made to the system, auditing the system and identifying the source becomes time-consuming.

- **Grant only the necessary permissions to access roles.** Permissions issues are one of the most frequently-occurring problems in a FileNet solution, and it is easy to fall back on "opening the door all the way" as a solution. This is a recipe for disaster. Make sure quality assurance and vendor staff test each different type of access role with the restricted permissions.

- **Manage service accounts appropriately.** Some integrations to a FileNet P8 system will be implemented using service accounts, i.e. accounts that are only used by another application or process to connect to FileNet, and that don't resolve to a specific individual.

Ideally, your solutions avoid these types of service accounts, but if you must use them, **limit access to the credentials information for these accounts to a documented set of individuals.** Change the passwords for these accounts frequently. Create these accounts in such a way that it will allow you as an administrator to isolate the access to a specific integration point with the FileNet system (i.e. **you do not want one overarching account** that you provide to many different integration points). This will help you to limit the vulnerability of the system data and any damage an unauthorized access might result in.

- **Follow IBM recommended best practices for FileNet accounts and security.** Because of the role that users and groups have in an enterprise content management system, it can be problematic to delete accounts that should no longer be active. Read up on the [IBM recommended practices](#) and consider **making an account inactive rather than deleting it to avoid problems in the system configuration.**
- **Work with your organization's security specialists.** There is a reason security specialists are paranoid about data breaches. It's the job of these professionals to stay on top of threats

to your users and system. Pay attention to what they have to say, implement their rules and be an advocate for them. Don't be afraid to **articulate specific security use cases** you may have that they can assist you in addressing.

- **Don't rest on your laurels.** Remember the bad actors out there are constantly trying to find new ways to defeat your system's security. Stay current with changes in security practices and your organization's policies.

## SYSTEM INTEGRATIONS

If paper didn't exist as a medium, we would invent it because it's so useful.

The phrase "going paperless" is not new, but much of the time when that term is bandied about the focus is on the process of turning the paper into electronic content. What is sometimes given less consideration, is how the business consumed or processed the paper.



Typically, there is already a well-evolved and effective business application in use that is associated with paper content. Also typically, while that business application manages its own data and processes well, it does not have the same level of sophistication for managing content compared to a top-tier enterprise content management system like FileNet P8.

In a large, diverse organization like a State government there are many business applications operating across the enterprise. **Offering content management as a service to be consumed through integration** can allow agency or

departmental business applications to achieve that top-tier ECM sophistication.

## The Challenge

The challenge in providing FileNet P8 as an integrated service to a wide variety of business applications is in **getting all those applications, agencies and departments to conform to the rules of an enterprise service.**

Each of these business applications is "mission critical" to their individual business communities, and from their perspective, their mission is more critical than all others. **How do we manage an enterprise system with hundreds or even thousands of integration points across all these business solutions?**

## The Solution

This is one of most persistent and difficult problems you will face in operating an enterprise FileNet P8 system in an integrated environment. It is persistent because the business applications are all being enhanced or upgraded, and new ones are always in the pipeline. It is difficult because **at its heart it is a people problem, not a technical problem.** Below are several recommendations based on my experiences:

- **Have inventory and document integration points.** When I first started working with the State enterprise FileNet P8 system there was little documentation on how the system was configured. I was "lucky" in that soon after joining the team responsible for maintaining this system we moved forward with a comprehensive system upgrade, including new infrastructure. I say lucky because this situation forced many of the vendors and agencies that already had developed integrated solutions to actually figure out all the different ways their systems were connecting to and from FileNet. This created the opportunity for our team to work with them to document all of the integration points for their systems.

We developed a “**solution interface spreadsheet**” template to be filled out in a collaborative effort by our team and the business application engineers to document how applications integrated into FileNet. Initially, there was much gnashing of teeth about the need to collaborate with the FileNet team on documenting integration points. Over time however, the value of our trove of documentation became clear to our vendor and agency partners.

In the old way of doing things, they would find out about a change when there was a disruption of service or when they found errors or users reported problems in their systems. Today, when we make a change, we review our integration point documentation for risks. **Because we know which are connecting and how they are connected we can coordinate with the vendors and agencies to avoid problems** where “clean up” activities in either FileNet or the business application get created.

- **Avoid the “wild west.”** There are plenty of software/system engineers that absolutely hate to create documentation about the wizardry they perform in building integrated business solutions. And there are plenty of business decision-makers looking for the cheapest solution available. Who wants to pay for documentation, right?

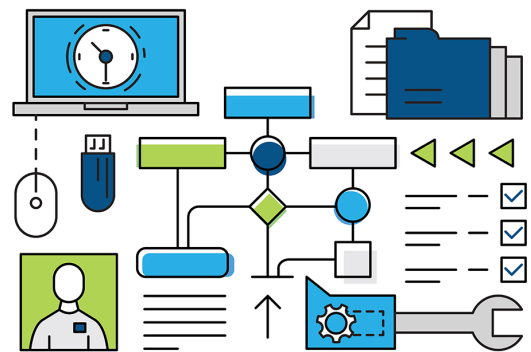
Those types of “one-off” solutions are completely possible if you get the right set of “cowboys” building them, but what happens *when you want to change it*? Then you find out those individuals and decision makers have moved on to other challenges and now you have no idea where to start. This can be costly, sometimes requiring a complete rebuild. It can also create serious risks when system vulnerabilities cannot be addressed because an old application is preventing other systems from upgrading.

A big part of avoiding these situations is refusing to “give in” to requests to provide

information, configuration and FileNet expertise to the cowpokes. Require them to **conform to your standards for both documentation and testing** and make it clear in your agency SLAs that enterprise systems are subject to regular upgrades.

- **Control the variables.** A big part of controlling the variables is managing the schedule of changes. You won’t be able to completely determine release dates for all of your integrated applications, but with good management interfacing you can avoid collisions of release dates that can so often evolve into sessions of finger-pointing.

Create a roadmap for your system, include release dates for all of your major integrated applications, **socialize that roadmap with your entire vendor and agency community weeks, if not months, ahead of time.**



- **Develop relationships with business stakeholders.** Your business stakeholders don’t want to learn about technology – they just want it to work, but establishing a relationship with the business stakeholders can make a huge difference in the success of your system. This communication needs to be two-way. In other words you need to **encourage business stakeholders to speak up when they have pain points that are in any way related to your FileNet P8 system.** Similarly, it is important for you to **educate them about the challenges you**



**face.** My experience with business stakeholders is that when they understand the risks to their business process they are strongly motivated to work with you to mitigate those risks.

- **Invest in the “Statement of Work.”** One of the most problematic situations you will encounter with integrated applications to your FileNet P8 system is that you don’t control the SOW. If you can participate in the identification of work tasks and deliverables for the FileNet integration when the SOW is created, you can go a long way to avoid issues further down the development waterfall. The agency or department has to be open to this input, but one way to help with that is to include it as a called-out part of your enterprise service in your SLA.
- **Be a partner.** Recognize that **your reason for being is to facilitate the business process of the agency/department** that is trying to integrate to your FileNet P8 system. This means you and your entire team need to be invested in the success of that agency or department. Sometimes this may mean carrying more water than is your fair share, but my experience is the dividends of success are considerably outweighed by those of failure.

Operating, maintaining and supporting IBM FileNet P8 is a big undertaking. It’s crucial that your organization continually invests in effective and comprehensive change management, system security and system integration processes. By focusing on these aspects of the system lifecycle, you’ll experience excellent ROI.

## ABOUT THE AUTHOR

James Taylor thrives at collaborating with new people on new challenges. He has extensive knowledge and experience about IBM products and is often raved about by our clients.

## ABOUT

### PYRAMID SOLUTIONS, INC.

Pyramid Solutions develops products and innovative solutions for organizations in a wide range of industries – from financial institutions to insurance providers to automotive suppliers and industrial automation companies. Our experts specialize in three core practices – Enterprise Content Management, Intelligent Manufacturing and Network Connectivity. For the past 27 years we have developed visionary solutions that yield exceptional results. For additional information about Pyramid Solutions, visit [PyramidSolutions.com](http://PyramidSolutions.com).

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