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PeopleFluent Learning

Upgrade Policies and Recommendations

An overview of the policies and recommended steps when planning an upgrade

www.peoplefluent.com/products/learning

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Introduction

This document provides a high level overview of the policies and recommended steps to consider when planning an upgrade of your hosted (SaaS) or on-premises PeopleFluent Learning LMS environment.

Benefits of Upgrading

Although changes to any computing environment require planning and review, hence some effort, the benefits can be considerable. For the LMS, the advantages include:

- New functionality that will enable you to pursue new and exciting initiatives within your organization. For example, new courseware interfaces, new mobile app capabilities, new automatic assignment features, and new external adapters for integrating with third-party software systems.
- Improvements in existing user interface (UI) and administrative functions, thus making the LMS more attractive to both learners and administrators by simplifying complex workflows and making the user experience more enjoyable.
- Technical changes that optimize performance, improve security, and automate work activities, thus making the LMS more robust and easy to manage.
- More timely support handling by being on a later release.

Whatever your priorities may be, upgrading is a practical, helpful step in making your LMS more productive and useful for all users throughout the organization.

PeopleFluent Learning LMS Upgrade Policy

Because PeopleFluent is extremely flexible in administering sites within the SaaS environment, people are often unaware of the specific policy governing upgrades. This detailed information is on the Customer Community but is repeated here to provide a framework and context for the overall process described in the remainder of this document.

- **Policy Statement #1** All PeopleFluent Learning LMS hosted sites require explicit confirmation and agreement from the client before the PeopleFluent Hosting Team perform an upgrade. The date and release/build will be confirmed as part of the request response.
- **Policy Statement #2** A request to upgrade a hosted site requires three weeks advance notice to the PeopleFluent Hosting Team. This lead-time is necessary to enable the PeopleFluent Hosting Team to prepare and review some technical characteristics of the site before to the production upgrade, thus increasing the overall robustness when the actual production upgrade is done, and to ensure team resources are available and booked for the target date.
- **Policy Statement #3** A *Managed Upgrade Service* Professional Services engagement is strongly recommended (especially for on-premises installations) but is not required. A standard upgrade procedure does **not** include any special client-specific testing, whereas with the Professional Services engagement this is part of the upgrade process. If the LMS instance is out-of-support (that is, more than three versions since release), a Managed Upgrade Package is **required**.

Upgrade Overview

Enterprise server level upgrades are more complex and involve more 'moving parts' than most people realize. While some LMS upgrades are straightforward (for example, a simple upgrade of one version), others are much more involved.

More often than not the upgrade process is a combination of multiple releases, dealing with new

workflow and security enhancements that may be significant in particular situations, making corresponding infrastructure updates to support the latest release, configuring client-specific customizations and interfaces involving third-party components, and various other technical and schedule coordination activities that need proper planning and preparation to make the transition to the new release as seamless and smooth as possible.

Managing this process requires planning and coordination. Hence, in this document we outline key actions that PeopleFluent has identified for achieving a successful and straightforward upgrade, whether in a SaaS or on-premises mode, and discuss general policies around these actions.

Related to the more detailed description of the upgrade actions is a set of procedures Client Services and the PeopleFluent Hosting Team have put in place to ensure each upgrade has the due diligence necessary prior to any upgrade being performed. Guided by the policies briefly stated above, these procedures are intended to make the complete upgrade process more stress-free and well-coordinated, which is to everyone's benefit. These planning issues are not unique to PeopleFluent or the LMS, because upgrading any enterprise software system that is used by tens of thousands of users requires due diligence to ensure that its impact on your organization is clearly understood, and that a methodical best practice approach is taken to minimize risk.

What Changes When You Upgrade LMS

Not all LMS upgrades are equal. Some of the complexities that vary from site to site are mentioned below along with a common example of how the issues manifest themselves based on our support experiences.

Upgrades from very old releases are more complex than upgrading a single point release

At a minimum the timeframe required for the upgrade is increased significantly (for example, there are more steps to perform so it might take six hours instead of one hour), and the functionality and UI enhancements within the LMS over many releases may be more significant for your site and so require more review before upgrading.

Common Support Issue Encountered: Planning on a longer downtime to perform the upgrade is sometimes an issue with sites where the LMS is in use 24x7.

Even upgrading one version involves new and changed functionality – this is the nature of new product development

In most cases existing functions are upwardly compatible, but sometimes, due to significant enhancements, the behaviors may be much more sophisticated than in the previous release. You need to know how these changes might affect your user community before upgrading, not afterward.

Common Support Issue Encountered: Clients did not test and are surprised that the layout of a particular screen changed (for example, the Learning Path) and therefore does not match their internal documentation to users.

Some upgrades also require corresponding upgrades to infrastructure components and third-party support libraries

These may include SAML, Apache, Tomcat, Java JVM release, WebEx, GTM, and payment gateways. There may also be implications for your internal systems because of external interfaces within your site.

Common Support Issue Encountered: New defaults in the upgraded common libraries no longer work with some older client systems.

Skin and menu design is frequently enhanced from release to release, and older custom skins may not be identical on the new release

For example, some screens will not display with the same formatting, font, or colors you expect. As screen layout is modernized and made more configurable new CSS elements are added to skins, new tags added to various elements, and – depending upon which features your site relies on – you may spot differences or browser compatibility issues. This is one area of the upgrades that cannot be made 100% upwardly compatible because of subjective appearance and – in some cases – JavaScript compatibility.

Common Support Issue Encountered: Old skin 'does not look right' on the new release.

Some sites have third-party interfaces that can only be tested at the client side

It is absolutely essential that this is coordinated before the production site upgrade. PeopleFluent's regression testing, while rigorous and detailed, cannot cover the significant combinations of customer-specific configurations and customer-specific data elements.

Common Support Issue Encountered: External gateway adapter now does not work because it supports a later release of a third-party vendor's system and requires different configuration settings to work the old way.

Security, permissions control, and data privacy management are also being enhanced from

release to release

While this is a good thing overall, it sometimes means that operations previously allowed or expected may behave slightly differently because security control has been tightened. While defaults try to accommodate the need for upward compatibility, increased security sometimes takes precedence, requiring changes be made to ensure that your site remains secure.

Common Support Issue Encountered: Some operations that users or managers used to be able to do are now not allowed because of new security controls. For example, the risky but common practice of entering JavaScript in News articles without proper trusted user permissions.

Workflow changes and UI differences in later releases are a necessary part of product improvement

These are beneficial to all clients and are actually created based on feedback from clients. At a minimum, users will see a difference and only the client can confirm that this will not cause any issues within their environment.

Common Support Issue Encountered: Client administrators get numerous support requests because users are unclear of how they should use the new screen and this was not communicated ahead of time.

Overview of Upgrade Responsibilities

When you want to upgrade, consider the following guidelines.

Allow enough time

For SaaS clients the minimum time from the request for a production upgrade is three weeks, and you need to allow for your own testing time. This minimum three-week period is used by the PeopleFluent Hosting Team to prepare and verify site technical requirements before the actual upgrade.

Test the upgraded LMS

This is not a repeat of QA - it is to ensure that the new release aligns with your needs as expected. Typically, your test site should be used for this purpose, or if you do not have one we, can give you access to a temporary demo site for this testing, on request.

Note that you have particular responsibility for testing:

- Skin acceptability
- External interfaces
- Unique workflows, configurations, and feature sets.

Consider using the PeopleFluent Managed Upgrade Service

PeopleFluent Professional Services will put together a core package to guide you through the entire upgrade lifecycle. This is especially recommended if you are skipping multiple releases or you have an on-premises site.

It is important to understand that the PeopleFluent SaaS Services team is not responsible for conducting User Acceptance Testing specific to your site. The PeopleFluent Hosting Team will perform the technical part of the upgrade, ensure that the site successfully loads, is accessible by user login, and ensure the site is properly connected to the database. All other testing is the responsibility of the client.

For these reasons, we ask clients to perform thorough testing either on their own or with the assistance of PeopleFluent Professional Services. Clients who chose to forego assistance by PeopleFluent Professional Services, or conduct any testing prior to a production site upgrade, may be requested (in the case of SaaS) to sign a risk waiver form indicating that they are aware of the risks associated with performing a production site upgrade without prior risk analysis and/or testing.

FAQ

Q1. Why does it require three weeks advance notice for an upgrade?

During this period the PeopleFluent Hosting Team will conduct an internal database level upgrade to ensure that your site is ready for the 'real thing'. We have found that this extra step greatly reduces the risk of technical surprises during the production site upgrade as it ensures that the most recent data is tested.

Q2. The LMS upgrade package has already been through QA, so what can go wrong?

Unfortunately, many possibilities exist, not all under the control of PeopleFluent. Here are some key examples:

- Skins that are no longer compliant with the release needs are one obvious example. Many clients create their own skins or have them done through third-parties, so PeopleFluent has no visibility into their adaptability to later releases, nor is skin upgrade an action included by default with the site upgrade.
- The biggest technical concern actually relates to the database schema upgrade itself as data models change over time and when skipping several releases this complexity increases, especially data-dependent schema script changes. More on this point below.
- Occasionally (especially for on-premises sites), clients may have modified some files that are not supposed to be modified, and the upgrade process will over-write these files thus causing some

previous configuration or UI settings to be lost. In the case of SaaS, we have standards for how such modifications should be handled to ensure that this is not an issue in the SaaS environment.

• When upgrading from an older release multiple versions of the Java JVM need to be applied in concert with the individual release requirements, and if this is not done properly errors can creep into the overall process.

Q3. Why would there ever be SQL schema upgrade problems?

Extensive upgrade QA testing is done with sample databases, but each site contains different data. For example, a previous release may have allowed certain data values or null pointers in certain fields and the new schema no longer allows those values. The automated step will produce an error that, while simple to correct, needs manual intervention or, in the case of non-SaaS upgrades, sometimes gets overlooked altogether in the logs.

Another data dependent issue is the time for certain upgrade steps to be performed, as some upgrade actions are iterative instead of bulk and hence may take much longer than expected or planned. This can adversely affect the upgrade process if a fixed amount of time was allocated and now the process exceeds the 'offline time' planned by the organization.

To mitigate these types of issues in the SaaS environment the three-week lead time by SaaS is used for a trial schema-upgrade test so that the hosting team can identify and rectify any potential problem prior to the time-sensitive production upgrade step. For on-premises clients we strongly recommend the **Managed Upgrade Service** from PeopleFluent Professional Services to deal with this risk area (and others).

Q4. Is the current skin upgraded by PeopleFluent when a site is upgraded?

No. The hosting team upgrades the site only. Individual sites may use multiple skins and/or may use skins produced by third-party organizations. Evaluation of a skin is also as much 'judgment-oriented' as it is functional. Skin upgrades to a new release is a separate paid Professional Services engagement.

Q5. There is a client sign-off process for upgrades. Why is this necessary?

This is there for one reason only – to ensure that you are aware of the issues involved and that all sides have communicated, advised, and coordinated the process and schedule as best as can be done. We want to make the upgrade process as simple as possible and we will take care of the underlying technical complexity, but there is more involved than simply 'pressing a button' to make this a smooth transition.

Q6. What are the benefits of the Managed Upgrade Package?

There is a separate document that outlines the services provided by this Professional Services package, so please refer to this guide for details. Some key points to keep in mind:

- We understand that you are busy and the stakes are high for your organization, so the Professional Services package can definitely help when your environment is more demanding, since this ensures that all of the pieces are handled as needed by PeopleFluent (even the skin upgrade is included).
- On-premises LMS environments are strongly recommended to make use of this package. As stated earlier, it is more complex than most people realize.

Q7. What if I have an urgent need to upgrade?

We will try to entertain all requests, but scheduling and coordination is also dependent upon availability of resources and support staff. If you have special needs, just raise this issue with your Relationship

Manager or PeopleFluent support, and we will discuss the appropriate next steps for any unusual requirements.

Q8. Is an update subject to the same guidelines as an upgrade?

No - these are two different things. An 'update' is when you need to have your current site updated to a later build, which contains bug fixes. Build updates are simple and can be done with minimal lead time and only require a normal support ticket authorization. It is likely that the 'downtime' for the site update can range from a 5 to 45+ minutes, depending on the amount of data in the database, to perform a restart and allow rebuilding of database indices and caches.

General Upgrade Procedures

The typical upgrade process is enumerated below, with additional explanation for some of the steps in subsequent sections.

Step	Responsible Party	Action	Comments
1	Client	Request LMS test site upgrade	
2	Client	Request test site refresh with current production data	Optionally, get access to a standard demo site if there is no test site, although this is limited in its testing capability (see Your LMS Test Site).
3	PeopleFluent	Perform the test site refresh and confirm completion	
4	PeopleFluent	Anonymize the test site database (if requested by client)	For data privacy reasons personal data can be obfuscated – at a minimum emails are cleared to avoid conflict with the production site.
5	PeopleFluent	Upgrade LMS on the test site to the target version and confirm completion	
6	Client	User Acceptance Testing on the new version and confirm completion	
7	Client	Requests production site upgrade	The agreed upgrade date will be explicitly confirmed.
8	PeopleFluent	Upgrade LMS on the production site and confirm completion	
9	Client	Confirm successful upgrade	

Requesting an Upgrade

The preferred way to request an upgrade is to contact your PeopleFluent Relationship Manager with your upgrade request, as there are often other related actions that will be taken care of by the Relationship Manager for you. You can also create a new service ticket in our service portal at https://support.peoplefluent.com.

A 'whole number upgrade' (for example, from 14.x to 15.x) is more complicated than minor number upgrades in that a new LMS license is required for both the testing and production sites, hence some additional coordination is required with PeopleFluent Sales Operations. Client Services will collaborate with your assigned PeopleFluent Relationship Manager, and the Relationship Manager will coordinate this extra step for you.

In the case of SaaS, the more advance notice you can provide for the upgrade request, the more smoothly the entire process will flow. We request that you contact us at least three weeks before the date you wish to upgrade to ensure that SaaS resources are available on the date you select. If it is possible to provide more advance notice, that would be greatly appreciated.

Regarding your selection of date and time for the upgrade, PeopleFluent Hosting Team has trained staff available to perform your upgrade from Mondays 1 AM GMT through Fridays 11 PM GMT, excluding holidays.

We will endeavor to perform the upgrade at a date/time that best works for you, but as mentioned above more lead time may be required in some situations.

Your LMS Test Site

Many hosted LMS clients already have a separate dedicated LMS test site. This test site will be used by both the PeopleFluent Hosting team, as described above, and clients for User Acceptance Testing prior to a final upgrade of the LMS production site.

Clients who do not have an LMS test site are strongly encouraged to consider obtaining one. Dedicated test sites can be arranged on a monthly basis at a nominal fee. Please contact your PeopleFluent Relationship Manager for further details.

You can request to have your test site refreshed or newly populated with data from your production site. This will allow you to conduct your testing with real-world data.

If for some reason you do not have a test site and do not want a temporary dedicated one for testing (which is essentially a clone of your production site), we can provide you with access to a standard demo site, on request, so that you can do basic sanity checking of the new release functionality. This is not as thorough as a site with your own data and configuration, but is better than no review at all.

PeopleFluent recommends that you anonymize the data to be loaded onto your test site. The PeopleFluent Hosting team can remove all Personal Identifying Information (user names, email addresses, etc.) when loading the test database. This serves as an important security protection for you, if required. Simply request this procedure at the same time as requesting the site refresh.

Please be aware that this refresh normally only includes the LMS database and does not include files, such as courses, images, repository items, etc. These can also be copied over to your test site upon specific request.

Clients are entitled to one free test site refresh per year. Additional refreshes are available at a nominal fee. Please contact your PeopleFluent Relationship Manager for further details.

PeopleFluent Professional Services

For those clients who require assistance in conducting User Acceptance Testing – assistance in preparing comprehensive test plans, test execution or training in new functions – PeopleFluent's Professional Services division can be engaged to perform managed upgrades. There are several different fixed price packages to choose from. These packages include Project Management, Health Check, Training and Post Upgrade Support, and are highly recommended. Please contact your PeopleFluent Relationship Manager for further details.

New Release Information

PeopleFluent publishes release notes for each new LMS version on our Customer Community site. We encourage you to carefully review these as they highlight the differences between LMS releases.

New versions will contain new features and functionality and may also contain enhancements to current features. Reviewing the release notes will help minimize the risk of unexpected findings during your testing or migration.

If you have chosen to skip several versions of LMS, be sure to review the release notes for each version from your current version to your target version.

For questions about any of the content in the release notes, please contact PeopleFluent Client Services via https://support.peoplefluent.com.

User Acceptance Testing

Browsers

Be certain to conduct the same tests on each browser that your company uses. Test on each version of the browser that your company uses and test different combinations of browsers, browser versions and operating systems.

Business Processes

Be certain to test on all critical business processes and workflows. As previously noted, certain functions may behave differently due to new enhancements.

We recommend that you test the end-to-end process of assigning, opening, completing and closing a course and/or program. We also recommend loading each of your courses to make certain that they load and display correctly as well as correctly reporting back completion and exam results and scores.

If your site license is Exam only, then we recommend extensive testing of the Question Editor, Exam Creation, Role Access Control and Permissions.

Skins and Stylesheets (CSS)

Review all custom skins, graphics and CSS. These may display differently in different versions of LMS as well as in different browsers.

Roles

Conduct your end-to-end tests in each relevant user role (administrator, learner, etc.). New LMS releases may include new security features that might lead to insufficient access errors if not properly configured.

External System Interfaces

External interfaces sometimes change with LMS upgrades. This can be due to changes from the external provider (for example, a later version might be supported or new APIs supported), so some planning specific to the external interface is required. This is especially important if your organization is heavily dependent upon its availability, for a payment gateway or SAML, for example.

Testing for these interfaces is very specific to the interface itself and requires an individual plan.

Other Notes

Your tests might reveal issues that require some follow-up, either by your staff or by PeopleFluent. For example, you might need to update your skins or you might need to contact your course vendor for updates. Be sure to build some contingency time into your project plan in case you discover issues that need to be addressed before the production site rollout.

After you have completed testing LMS on the test site and are ready to request the production site upgrade, we recommend that you specify both the same version number and same build number that you tested.