Immidio Flex+: A User Environment Management Solution That Fits

Does your organization suffer from hidden productivity loss? Are inconsistent IT user experiences and ad hoc activities—such as manually mapping network drives and printers or providing application shortcuts to end users—putting a strain on your IT department? Deploying a user environment management (UEM) solution removes the need for manual interventions and decreases costs while increasing reliability and customer satisfaction. Flex+, a new UEM solution developed by our partner Immidio B.V., is a cost-effective method for creating a consistent user experience in Windows environments. Flex+ also works well with Micro Focus® ZENworks®.
Introduction

This white paper accompanies Immidio’s move into the field of user environment management (UEM), following their release of Immidio Flex+. The move into UEM is a major milestone in Immidio’s evolution from creators of a profile management product to providers of a full UEM solution.

Designed and developed in close collaboration with Immidio’s rapidly growing customer base, Immidio Flex+ is the successor to their Flex Profiles product. Flex+ offers a mature UEM solution at a fraction of the cost of comparable products.

Immidio Flex+ distinguishes itself from other UEM solutions by offering a flexible solution that fits your needs, as shown in Table 1.

**Flex+ Fit Makes the Difference**

<table>
<thead>
<tr>
<th>Customer Needs to Fit:</th>
<th>Flex+ Offers Flexibility for:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing Windows architecture</td>
<td>Centralized or decentralized architecture</td>
</tr>
<tr>
<td>Physical and virtual desktops</td>
<td>Fat or thin desktops</td>
</tr>
<tr>
<td>Existing Windows infrastructure</td>
<td>No dedicated (extra) servers required</td>
</tr>
<tr>
<td>Currently installed products</td>
<td>Embracing instead of replacing</td>
</tr>
<tr>
<td>A specific timeline</td>
<td>Setup in days instead of weeks</td>
</tr>
<tr>
<td>Available budget</td>
<td>The best possible total cost of ownership (TCO)</td>
</tr>
</tbody>
</table>

Table 1. Flex+ flexibility fits customer needs.

More importantly, Flex+ will fit your future, regardless of the choices you may make about your Windows infrastructure later on.

This white paper explains the Immidio vision for UEM, the role of Flex+ in this vision, and the benefits you can capture by deploying Flex+ within your current Windows infrastructure. For more information, visit: www.immidio.com

A Challenging Landscape for the Workplace

Many organizations today are struggling with the consequences of “the new world of work.” They find it difficult to meet the expectations of their workforce, while at the same time attracting new talent and retaining current staff.

The principal drivers for this new world are workshifting and the consumerization of information technology.

Workshifting: Employees want and expect to be able to work anytime and anywhere they choose, using different applications and devices to best match the context and location they work in.

Consumerization: The average employee is increasingly tech-savvy, bringing personal experience, solutions and devices into the workplace. This is happening both directly (by physically bringing in a personal device) and indirectly (by demanding the same capabilities from the work environment as the home environment). The next-generation workforce (Generation Y, the “digital natives”) is very demanding in this context.

Demands for the Corporate Workplace

Workshifting and consumerization are driving changes in demands for corporate workplaces, such as:

- The use of multiple devices, including bring your own device (BYOD)
- The ability to work in different locations, within or outside the corporate network and facilities
- A consistent and personalized user experience across locations and devices
- Dynamic configuration of the user experience; adopting the settings (including security) and experience relevant to the location the user is working in
- The expectation that applications will “just work” and are always one click away to install and use

Some of the largest infrastructure vendors (Microsoft, Citrix and VMware, for example) do not deliver all the required capabilities to address these new demands. As a result, many organizations are configuring, customizing and tweaking their existing infrastructure with scripts, group policies and whatever they can to meet workforce demands.
You can eliminate the need for expensive, time-consuming customizations with the effective deployment of a user environment management (UEM) solution. In addition, the right UEM solution can decrease your IT costs while increasing reliability and customer satisfaction.

**The CIO Agenda: Eliminating Distortion**

The current economic climate presents CIOs with tough challenges. According to Gartner research, “IT organizations will have to deliver on multiple priorities without an increase in their IT budgets.”

To achieve this, Gartner states that “CIOs in many industries will focus exclusively on eliminating distortion as they face severe economic, financial and other challenges. This is the year to emphasize eliminating distortion rather than reducing the cost of distortion.”

The bad news is many organizations have introduced distortion while trying to close the gap between current workplace demands and the capabilities of their existing Windows infrastructure. Fortunately, the good news is an effective UEM solution can eliminate most of this distortion.

To reduce or eliminate distortion costs, the implementation of a UEM solution must be timely and cost effective, and the solution must offer a low total cost of ownership (TCO).

**Immidio: Turning Workplaces into Flexplaces**

Immidio enables organizations to address the changing needs that result from consumerization and workshifting. Immidio's strategy has always been to build on the capabilities of your existing Windows infrastructure and offer an evolutionary path toward a better overall solution.

This strategy effectively delivers a "win-win-win" situation:

- From a business perspective, you do not lose your existing investments, but leverage them further with a small, incremental investment that can significantly raise the value of your current Windows infrastructure.
- From an IT perspective, you sustain your existing architecture, technology and product choices, while eliminating manual overhead (such as maintenance of group policies and scripts). A good UEM solution can also decrease the number of helpdesk calls.

- From a user’s perspective, a personalized user experience—with choices, consistency and significantly faster performance—can raise workforce satisfaction.

**Introducing Flex+: UEM that Fits You**

Figure 1 on the following page shows the Immidio Flex+ conceptual architecture and the layers of the Flex+ UEM solution. The User Environment layer consists of the personal settings a user can apply to both the Windows environment and to Windows applications.

The Personalization layer ensures that Immidio Flex+ delivers the user’s personal settings for Windows and applications to the system he or she is using (be it a physical or a virtual system).

The Dynamic Configuration layer delivers the appropriate environment to a user. In this layer, Immidio Flex+ makes final adjustments to provide an environment that is relevant to the user’s specific situation, such as working inside or outside the corporate network.

**User Environment Layer**

The user environment contains the user environment settings as well as the configuration settings of the Windows applications available to this user.

**USER ENVIRONMENT SETTINGS**

Users may change the Microsoft Windows environment according to their personal preference: the desktop image, specific desktop shortcuts, and so on. In addition to the user’s personal preferences, the user environment also contains specific user-related network resources that the IT department has made available, such as network printers and drive mappings. Application shortcuts and file type associations need to be created here for the Windows applications authorized for this user. You can manage user environment settings via the Flex+ management interface, deliver them to the user via the personalization layer, and tailor them to the user’s specific situation via the dynamic configuration layer.

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*Gartner 2012 CIO Survey, [www.gartner.com/technology/cio/cioagenda_findings.jsp](http://www.gartner.com/technology/cio/cioagenda_findings.jsp)*
APPLICATION CONFIGURATION MANAGEMENT

Application configurations can be centrally managed, and IT can configure the initial settings of an application without having to rely on the defaults of the installed or virtual application. This feature allows an organization to enforce a specific application configuration for compliance, or to ensure that an application will always work at startup.

With Flex+, you can eliminate a common problem for client-server applications by preventing users from incorrectly configuring an application. User satisfaction and helpdesk load both benefit from application configuration management.

In addition to the configuration settings for the application itself, you can also use application configuration management to set the appropriate resources for the application. For instance, you can automatically create the drive mapping to the network drive that contains all photo materials when a user starts Photoshop.

APPLICATION PROFILER FOR BUSINESS USERS

To enable business users to determine which configuration they can use for an application, Immidio has developed Application Profiler. A business user configures the application from within the application, and Application Profiler will save the settings in a configuration file that can be used with Flex+.

You can create multiple configuration files. The personalization and dynamic configuration layers will determine which configuration Flex+ applies to a specific user in a specific context.

Personalization Layer

The personalization layer contains the roots of Immidio FlexProfiles, the predecessor of the current Flex+ product. The personalization layer enhances the capabilities of Windows profiles in three ways:

1. **Decouple.** It decouples the user profile from the Windows profile. By doing this, Flex+ can separately manage the profiles. Also, decoupling allows Flex+ to manage any profile, regardless of Windows version. In the event of an upgrade to a new Windows version, you can still use all relevant Flex+ profile settings. The value of this capability in enterprise Windows migration projects is tremendous.

2. **Segment and Compress.** Traditional Windows profiles contain all Windows and application settings in one profile. This makes troubleshooting or isolating a single application difficult. For unresolvable issues the usual response is to roll back to an older profile backup, which often ruins the user experience. Flex+ segments profiles to resolve issues that arise from a monolithic profile. For each application Flex+ keeps the settings in a separately managed segment folder. You can determine which Windows settings to segment and manage separately. Segmenting settings increases the transparency of problems and resource usage. Profile-related problems are easier to resolve without harming other applications or Windows settings. With the Flex+ self-support tool, users can reset or restore a specific application or Windows segment themselves, without affecting other segments. In addition, Flex+ compresses all profile data. Compression can save 20 percent or more on storage. For some customers, compressed profiles lower storage costs enough to deliver the required return on investment (ROI).

3. **Deliver on the Fly.** Flex+ effectively eliminates long wait times, a common problem with Windows profiles in an enterprise context. Flex+ only delivers profile data when it is actually required (“on the fly”). Flex+ delivers the relevant profile segment when a user launches an application. This greatly reduces log-on times, as the amount of profile data Flex+ delivers is minimized. Also, the compression of all
profile data effectively reduces the amount of data that you need to transport across the network. Flex+ handles all profile updates in real time, and does not require the user to log off to update the profile data. This feature ensures the latest settings will always be available when a user (re)opens an application, even if this is a second session on another (virtual) machine.

APPLICATION MIGRATION
Immidio Flex+ enables users’ personal application settings to “roam” from one operating system to another (such as from Windows XP to Windows 7), as long as the application is storing its configuration in the same location as the user profile (same registry and AppData locations).

In any application version upgrade, either as part of an operating system migration or as part of the application’s lifecycle management, Flex+ personalization manages the personal application settings. However, some upgraded applications might not store the personal application settings in the same location as the previous version, causing users to lose some of their settings.

With Immidio Flex+ an XML-based application migration mechanism can migrate personal application settings between application versions. An XML file for migrating Microsoft Office 2007 to 2010 is included in Flex+.

Dynamic Configuration Layer
Tailoring the environment to a user’s specific situation is the final step in delivering a relevant Windows desktop to them. The dynamic configuration layer allows organizations to remove many hard-to-maintain customizations—complex organizational units, group policies and scripting—helping CIOs achieve their goal of eliminating distortion.

The dynamic configuration layer turns “dispersed and scripted” into “centralized and non-scripted,” also improving the maintainability of the relevant setup. Figure 2 illustrates how you can define reusable condition sets, which check specific parameter values for user, device and location.

In Figure 2 a condition set is created that validates whether a user is connected to the corporate network. You can then define a rule that uses this condition set to make the environment relevant to the user’s situation. In this example, a banking application is only available to users on the corporate network. You can reuse condition sets against multiple rules, which further improves the maintainability of the setup.

With Flex+ you can configure all condition sets using a graphical user interface, eliminating the need for programming skills, as well as related programming defects created by complex distributed setups. The flexibility of the dynamic configuration layer is limited only by your imagination.

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**Defining Condition Sets: an Example**

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Condition Sets</th>
<th>Dynamic Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Characteristics of the User, Device &amp; Location</td>
<td>Build reusable checks on multiple parameters</td>
<td>Check parameters and apply relevant settings</td>
</tr>
<tr>
<td>Role</td>
<td>User is on Corporate Network</td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hardware Software</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>Location</td>
<td>Network Office</td>
<td></td>
</tr>
<tr>
<td></td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

If “User is on Corporate Network” then create Shortcut for Banking Application

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**The Added Value of Flex+**

Immidio Flex+ is designed to leverage and optimize your existing investments. It’s a small add-on to your existing infrastructure that has a big impact and many advantages. This is what sets Immidio apart from the other UEM vendors: Flex+ will fit your current situation—whether it’s desktops, server-based computing (SBC) or a virtual desktop infrastructure (VDI).

Flex+ is an affordable, fast and simple UEM solution. It does not require extra dedicated backend servers. Flex+ taps into your existing infrastructure, leveraging and extending the Windows capabilities that are already in place. Scalability is only limited by the scalability of your current infrastructure, not by Flex+.

The maintainability, supportability and performance of Flex+ add value and key benefits throughout your organization.

**Key Benefits for Users and the Business**

Flex+ addresses the changing needs driven by workshifting and IT consumerization. With this, Flex+ directly contributes to the top business priority of attracting and retaining staff. In addition, it increases user satisfaction, reduces frustration and improves user productivity.

The user gets an optimal user experience through:

- A personalized and relevant Windows desktop
- Consistent behavior regardless of device, virtual or physical desktop, and Windows version
- Increased performance
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- Improved stability and support: no rollbacks of the complete profile to address a problem with one application
- Self-service: reset or rollback to previous settings for a specific application
- A dynamic desktop that does not require logon or logoff for changes to take effect

Key Benefits for the IT Manager
A key benefit of Flex+ is that it enables an IT organization to support their growing needs at a marginal additional cost. Flex+ effectively increases the value of your existing Windows infrastructure, not just by adding capabilities but also by eliminating the customization-related distortion organizations have created while trying to deliver dynamic desktops.

The top three benefits Flex+ offers the IT manager are:

1. **The lowest UEM license cost in the market.** The ability to leverage existing skills and infrastructure without the need for new dedicated backend servers, plus an evolutionary transition into segmented profiles, result in the lowest cost-to-implement UEM in the market.

2. **Low TCO.** Improved manageability due to eliminated distortion, fewer helpdesk calls, profile problems that are simpler to resolve, and no need for dedicated backend servers—combined with the lowest UEM license cost in the market—effectively deliver the lowest total cost of ownership for a UEM solution.

3. **High added value in enterprise migrations, both for application migrations and Windows migrations.** Flex+ can provide an easy transition by moving the existing personal settings into the new environment.

Key Benefits for the Architect
Flex+ fits in with and strengthens the architectural choices you’ve already made, not just on an architectural level, but also for the products you’ve selected within your architecture—SBC, VDI or desktops. For example, when used with VDI, Flex+ allows non-persistent VDI that is personalized, reducing storage costs and simplifying deployment.

The inherent benefits of the Flex+ architecture include:

- Fits your current architecture and infrastructure
- Fits your existing profile strategy
- Extends the existing infrastructure without the need for additional servers; scalability is determined by your standard architecture and infrastructure
- Offers a structured approach to eliminate the distortion related to customization with organizational units, dispersed group policies and scripting
- Minimizes the number of application packages (MSI installers or virtualized applications such as App-V), combining a single application package with multiple sets of configuration settings
- Expedites both application migrations and Windows migrations
- Allows an evolutionary transition to segmented profiles, where the profile is incrementally cleaned in each step of the evolution
- Offers improved user performance without the need to scale
- Drives lower storage costs as a result of compression
- Delivers dynamic desktops due to dynamic profile updates (no need to log on or off)
- Improves maintainability through reduction of complexity by using a centralized approach to all personalization and contextualization that taps into existing infrastructure

Key Benefits for the IT Administrator
The benefits Flex+ offers the IT administrator are twofold. First, there is a reduction in the effort required to maintain and run IT operations. Second, Flex+ minimizes the number of helpdesk calls and the time required to resolve them.

Immidio Flex+ allows an organization to eliminate the customization-related distortion created when providing personalization and contextualization for dynamic desktops. This leads to potential benefits such as:

- Improved maintainability by elimination of dispersed group policies, organizational units and scripting for personalization and contextualization
- Fewer Windows packages by using Flex+ to inject configuration settings
- Improved performance of your existing infrastructure by on-the-fly delivery of compressed profile information
- Improved manageability of profiles: better overview and insight due to segmentation

In general, simpler infrastructure that’s easier to manage and maintain will lead to fewer helpdesk calls and happier users. Besides fewer calls, Flex+ shortens resolution times for the remaining helpdesk calls. This is due to the central management of all personalization and contextualization settings in a simple graphical user interface, and the increased transparency offered by segmented profiles.
Another benefit of segmented profiles is that you can limit problem-solving to a specific application. Instead of rolling back a user’s entire profile, losing all the other settings in the process, Flex+ lets you pinpoint the profile problem to a specific segment. It also provides self-service options to selected users.

**Free 30-day Trial of Flex+**
See the benefits of UEM and the added value of Flex+ for yourself. If you have generic Windows infrastructure skills and experience, you can start using Immidio Flex+ without any additional training. For a limited time a 30-day free trial of the Flex+ software is available at [www.immidio.com](http://www.immidio.com). The free trial allows you to download the installation package to evaluate Flex+ without any technical limitations. As soon as you complete the download, you will receive your personal free trial license.

**Contact Immidio at:** [www.immidio.com](http://www.immidio.com)

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