CBRAIN™

F2 PC Client Distribution

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Responsible: Peter Kristensen

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Introduction

In the following document we provide a technical introduction to F2 PC Client distribution methods.

We welcome any questions and comments to this documentation as we would like to continuously enhance the Technical Description. Please address your comments to:

Peter Kristensen: pkr@cbrain.com
Special Advisor - Technical Partner and Compliance

F2 PC Client distribution methods

F2 clients can be installed on PC's using one of these methods:

1. Microsoft technology **ClickOnce** https://msdn.microsoft.com/en-us/library/t71a733d.aspx
2. **MSI** packed https://technet.microsoft.com/en-us/library/cc978328.aspx

The two methods are introduced below:

ClickOnce

ClickOnce is the recommended solution for F2 client distribution (except virtual environments such as Citrix).

The F2 client software is placed on the customer's F2 server as part of F2 server installation and upgrades. With ClickOnce, users download and install the F2 application from the F2 server by clicking an icon on their PC representing the deployment manifest file.

From a security perspective, ClickOnce applications use internal certificates to verify authenticity of the publisher of the application. This method prevents the harmful problem of an application's publisher portraying itself as legitimate.

ClickOnce deployment overcomes three major issues in deployment:

- **Difficulties in updating applications.** With ClickOnce deployment, you can provide updates automatically. Only those parts of the application that have changed are downloaded, and then the full, updated application is reinstalled from a new side-by-side folder.
- **Impact to the user's computer.** With ClickOnce deployment, each application is self-contained and cannot interfere with other applications.
- **Security permissions.** ClickOnce deployment enables non-administrative users to install and grants only those Code Access Security permissions necessary for the application.

**Important note:*

May cause issues if installed on VDI environment (e.g. Citrix). This requires a high level of technical knowledge of the employed VDI infrastructure and technology.

For Citrix XenApp, please refer to http://support.citrix.com/article/CTX125453

cBrain does not have the required skillset to perform troubleshooting on your VDI environment.

Patch and update

The ClickOnce deployment system will automatically install new patches and upgrades when the user launches the client the first time after a server upgrade is completed.

Pro:

1) Automatic installation of client-side patches and upgrades.
2) Standard support for multiple custom F2 clients and naming (for different F2 server systems/customer departments) on the same PC.
3) No extra cost/ressources for MSI packaging.
4) No errors introduced during MSI packaging.
5) Deployment tool such as Microsoft Endpoint Configuration Manager is not needed.
6) It is the cBrain standard for distributing F2 clients which makes troubleshooting very easy.

Con:

1) Not recommended for Virtual environments like Citrix.
2) Some organizations might prefer to deploy software as MSI packages using Microsoft Endpoint Configuration Manager (formerly System Center Configuration Manager) or similar deployment tool to get an overview of who has installed the F2 client.

MSI packages

MSI packages are recommended for Virtual environments. The MSI package has an additional cost as well as extra resources at the customer it-organization.

Each package (.msi) file is a relational database that stores all the instructions and data required to install and remove the program across various installation scenarios. For example, a package file can contain instructions for installing an application when a prior version of the application is already installed. The package file also contains instructions for installing the software on a computer where that application has never been present.

Custom clients must be configured individually through a MSI (MST) transform file. Custom clients are used for multiple F2 clients and naming (for different F2 server systems/customer departments) on the same PC.

Patch and update

The customer is required to deploy an updated client in the managed environment after a patch or update using a deployment tool of their choosing.

Pro:

1) Recommended for Virtual environments e.g. Citrix.
2) Some organizations might prefer to deploy software as MSI packages using Microsoft Endpoint Configuration Manager (formerly System Center Configuration Manager) or similar deployment tool to get an overview of who has installed the F2 client.

Con:

1) No automatic installation of client-side patches and upgrades.
2) Difficult to support multiple custom F2 clients and naming (for different F2 server systems/customer departments) on the same PC. At this point cBrain can not confirm this concept as supported from F2. However, it might be possible via the customer configuration of the MSI deployment tool.
3) Extra cost/resources for MSI packaging.
4) Potential for errors introduced during MSI packaging. Need for a reference installation for faster troubleshooting can be an option.