

HotelTV2

FTP Release Preparation

REV A0.5

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1. Revision History

Date	Owner	Version	Reason & Change
03 Agu 2012	Umut Türe	A0.1	Initial creation
15 Sep 2012	Bora Tunçer	A0.2	Structure change
20 Sep 2012	Umut Türe	A0.3	Table of Figures are added
31 Oct 2013	Bora Tunçer	A0.4	Naming changed
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4. Introduction

4.1. Purpose

Purpose of this document is to explain necessary steps of FTP update release preparation and performance.

The following sections describe the environment usage model:

- “4 – Release Creation” describes creating necessary files for FTP Update.
- “5 – FTP Server Creation” describes creating an FTP Server on IIS and true format of files under FTP.
- “6 – Starting FTP Update” describes the process of starting update on TV.

4.2. Scope

This document intends to be a reference manual for creating of HotelTV2 client releases and explains each step of properties through HotelTV2 client release with examples. This document is shared and applicable for the development all VESTEL sites.

4.3. Abbreviations

- | | |
|-------|-------------------------------|
| • IP | Internet Protocol |
| • TV | Television |
| • FTP | File Transfer Protocol |
| • IIS | Internet Information Services |
| • OAD | Over air download |
| • DCF | DRM Content Format File |
| • DRM | Digital Rights Management |
| • TXT | Text File |

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5. Release Creation

First we will divide update image into small downloadable chunks and configure the DCF file for download management. (DCF should be signed for security of download procedure)

For generating download files following programs should be installed on the working PC. These programs are available at Vestel sw servers.

- Perl <\\Manrdswfile1\Programs\Perl>
- Any FTP manager program <\\Manrdswfile1\Programs\ftp>
- Authentication program and related Public Keys for MB70 model TVs. <\\Manrdswfile2\Oad\OAD\Authentication>
Copy Authentication folder to your c:\Authenticaiton folder directly.

Secondly we will detail remote update procedure.

5.1. Creating Release Images

This chapter will focus on how to create downloadable chunks and txt form of DCF file from release images. We should create two folders named 'carpo' and 'Authentication' under 'C:/' and copy your setup image 'squashfs.img' into carpo folder. makeSSUCarpo.pl script is used to generate download images from 'squashfs.img' and initial .txt form of DCF file. DCF file is a controller to download chunks successfully and safely.

Usage:

```
makeSSUCarpo.pl [Release Version] web_download.cfg [cramfs file]
```

Example:

```
makeSSUCarpo.pl 0x0001 web_download.cfg squashfs.img
```

Version of new release :

From service what we see as version number is decimal representation of hex number. Each number in dot separated form can be in between 0 to 15. Real version number can be found as below formula.

$$V N1.N2.N3 \Rightarrow N1 \times 256 + N2 \times 16 + N3$$

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Example:

```
V 0.1.15
V 0.1.15 => 0x256 + 1x16 + 15 = 31 => 0x1F in hex form so for
version we should pass value as below

makeSSUCarpo.pl 0x0999 web_download.cfg squashfs.img
```

! Version of new release should be bigger than defined in the Cramfs image file !

After executing command above, chunks and txt form of DCF file will be created under 'carpo' folder.

- Chunks are named like part_1.bin , part_2.bin part_<>.bin.
- Txt form of DCF file is named like <xxxx>.txt. For example : 3621.txt.

Name	Date modified	Type	Size
0009df-3621-0999.dbc	28.08.2012 13:32	DBC File	3 KB
3621.txt	28.08.2012 13:32	Text Document	8 KB
adimlar.txt	23.11.2011 09:14	Text Document	1 KB
makeSSUCarpo.pl	03.11.2011 15:18	Perl program file	20 KB
makeSSUstep2.cmd	28.08.2012 13:32	Windows Comma...	6 KB
part_1.bin	28.08.2012 13:32	VLC media file (.bi...	1.024 KB
part_2.bin	28.08.2012 13:32	VLC media file (.bi...	1.024 KB
part_3.bin	28.08.2012 13:32	VLC media file (.bi...	1.024 KB
part_4.bin	28.08.2012 13:32	VLC media file (.bi...	1.024 KB
part_5.bin	28.08.2012 13:32	VLC media file (.bi...	1.024 KB
part_6.bin	28.08.2012 13:32	VLC media file (.bi...	1.024 KB
part_7.bin	28.08.2012 13:32	VLC media file (.bi...	1.024 KB
part_8.bin	28.08.2012 13:32	VLC media file (.bi...	1.024 KB
part_9.bin	28.08.2012 13:32	VLC media file (.bi...	1.024 KB
part_10.bin	28.08.2012 13:32	VLC media file (.bi...	1.024 KB
part_11.bin	28.08.2012 13:32	VLC media file (.bi...	1.024 KB
part_12.bin	28.08.2012 13:32	VLC media file (.bi...	1.024 KB
part_13.bin	28.08.2012 13:32	VLC media file (.bi...	1.024 KB
part_14.bin	28.08.2012 13:32	VLC media file (.bi...	1.024 KB
part_15.bin	28.08.2012 13:32	VLC media file (.bi...	1.024 KB
part_16.bin	28.08.2012 13:32	VLC media file (.bi...	1.024 KB
part_17.bin	28.08.2012 13:32	VLC media file (.bi...	1.024 KB

Figure 5-1: Downloadable chunks and Txt Form of DCF File

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5.2. Creating DCF File From Txt Form

This chapter will detail creation of DCF file. Under 'Autharization' folder there should be 'Shortcut to keyauthent.exe' which is a tool to creates DCF File from Txt form. We should run this executable and select '0002-0001-01' from 'Key ID' and then Browse 'Control File' and choose Txt Form of DCF in 'carpo' like below picture.

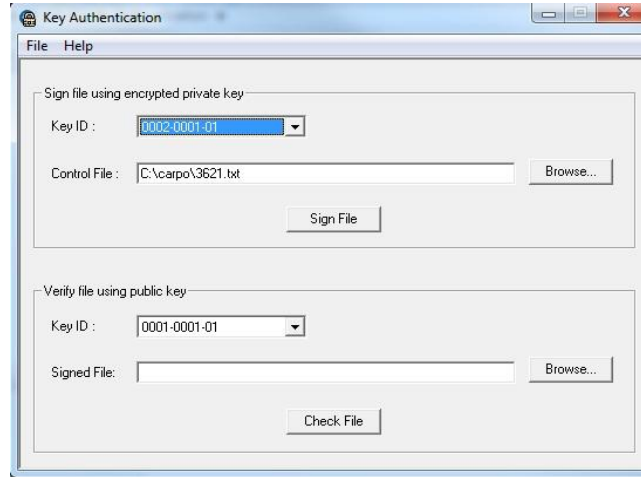


Figure 5-2: Creating DCF File

When clicked to 'Sign File' button , keyauthent.exe will ask for passwords. Enter first line of password and for second key use second line of following password shown below.

d30ea6e7cc785ac0597c5e71db944d80

395f89f3bbb0e9d53e1754f965677160

After pressing authenticate button program will promth control file successfully signed. Files will be located under 'C://Authorization/signed' folder and name of the file will be <TextFormName>.dcf.

6. FTP Server Creation

First of all the TVs should be configure to download files from the given FTP. You could use Bootcaster or define FTP settings in profile files. If you choose to use bootcaster for delivering boot parameters to TV then please refer to "DOC000000XXX.Vestel_SDK.doc" in order to learn how to bootcaster works. Other case in order to set FTP credentials we should create a new profile file and apply to TVs via USB.

You could continue reading this part if you want to set a FTP server on IIS or skip this part and go to 5.2. if you already have a FTP Server.

6.1. Creating a New FTP User

A new username and password could be defined on windows to log on FTP Server or you could use a valid username and password for FTP. To create a new user on Windows 7 go to Computer Management and follow steps on below picture.

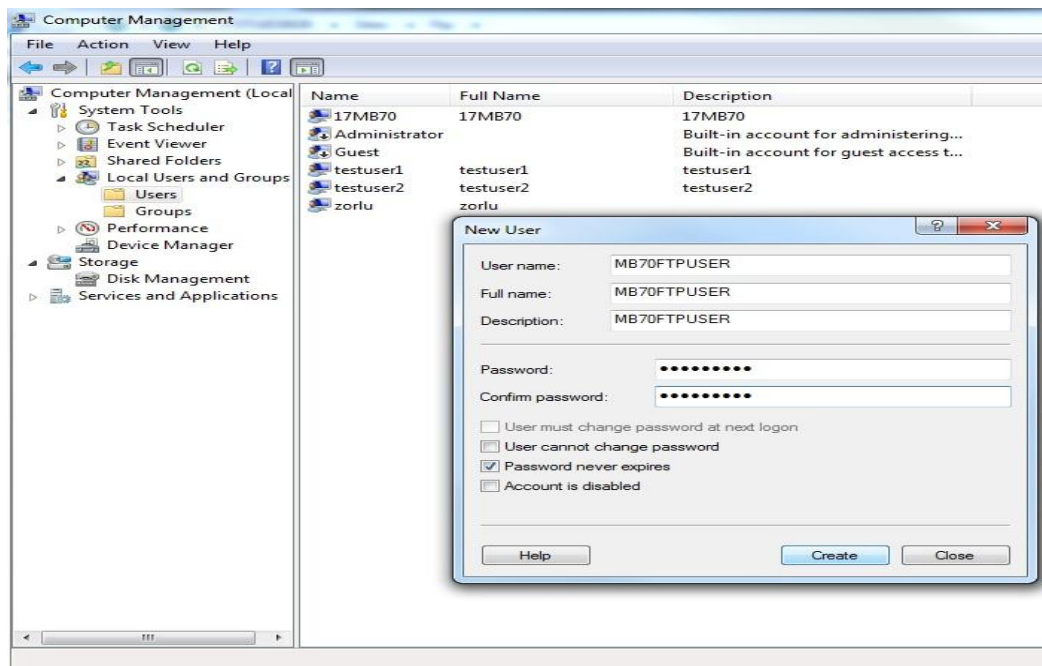


Figure 6-1: Creating a new ftp user

We should deselect 'User must change password at next logon' and select 'Password never expires' for a static password.

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6.2. Creating FTP Server on IIS

We should be sure that FTP features is turned on while installing IIS or go to 'Control Panel-> Programs or Features -> Turn windows Features On or Off' and select all FTP Features under IIS to use FTP Features of IIS.

Run IIS Manager and follow the steps below.

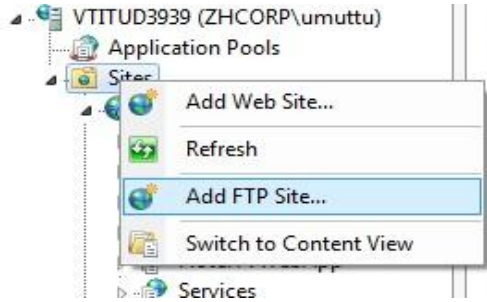


Figure 6-3: Adding a new FTP site

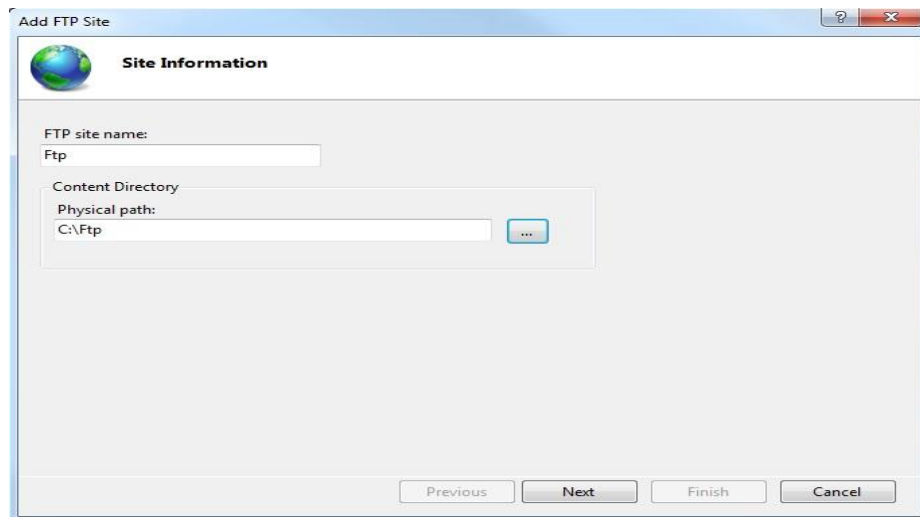


Figure 6-2: Select FTP Site Name and

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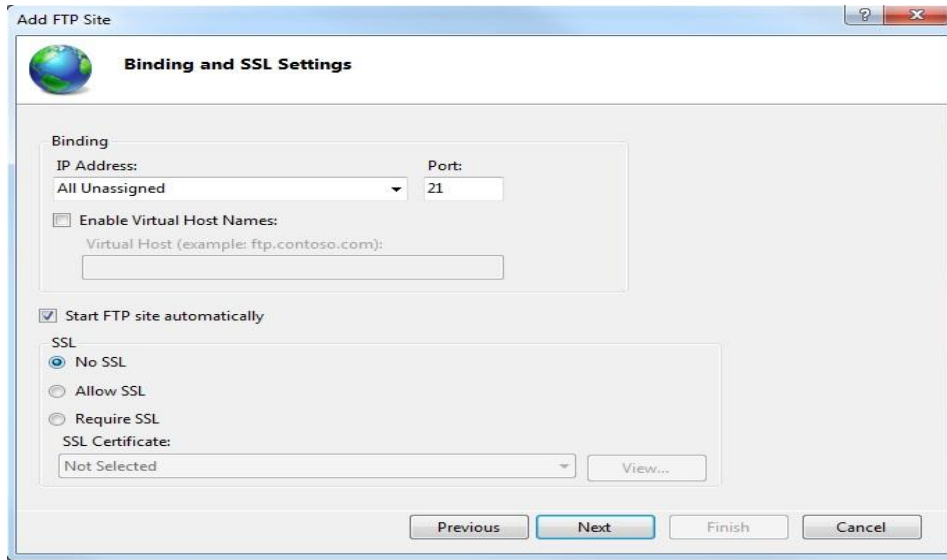


Figure 6-5: Binding and SSL Settings

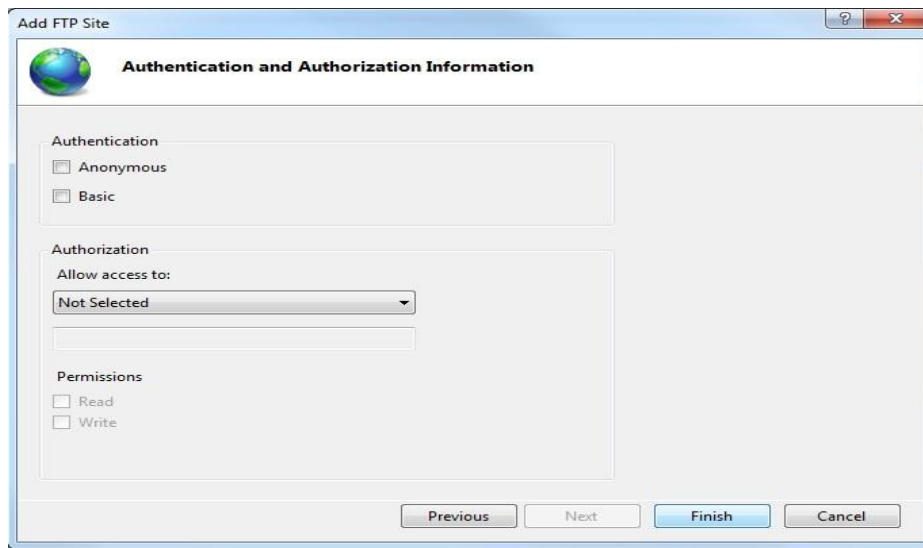


Figure 6-4: Authentication And Authorization

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After these steps , FTP Server will be ready to use. You could test ftp server browsing below url. <ftp://<SERVERIP>:<PORT>> (If port is default port (21) , you could not write <PORT>)

To set username and password to FTP please follow steps below.

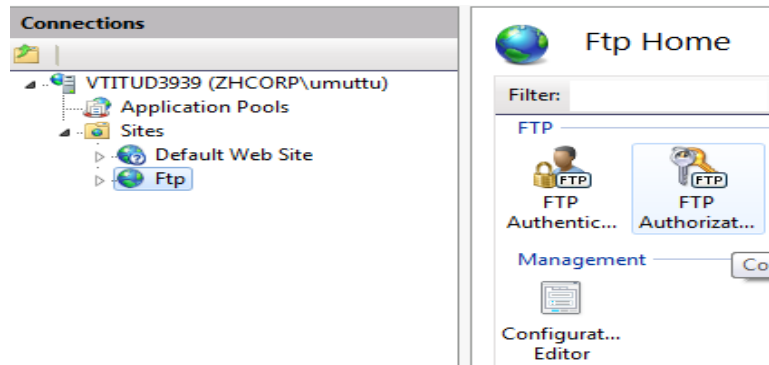


Figure 6-6: Authorization Settings

Remove all rules to generate new rules.FTP Server can allow all connections by default.Click ‘Add Allow Rule..’ button and set configurations like picture below after remove all rules.

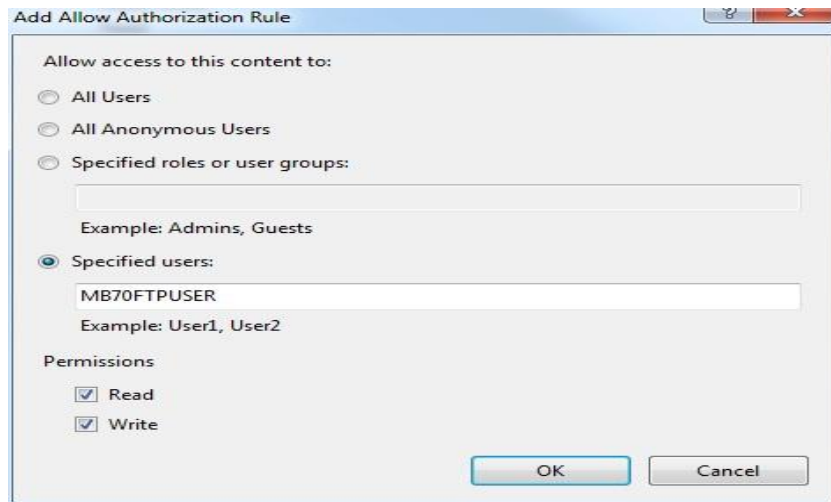


Figure 6-7: Authorization

6.3. Copy Files to Ftp Folder

Inside the base folder there should be 3 sub-folders. These folder names come from DCF file body and name. In order TV to correctly read the files, directory names should strictly be same as in DCF file.

First; sub-folders are named with DCF file. Considering MB70, below path is possible. In DCF folder there should be a file named “**ping.me**”. This file is checked for server connection availability. It could be a small file for server connection test. It should exist inside DCF folder.

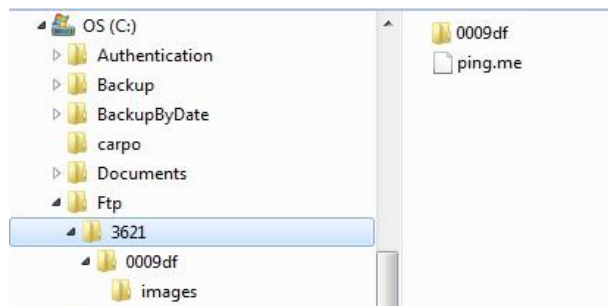


Figure 6-8: First subfolder on FTP

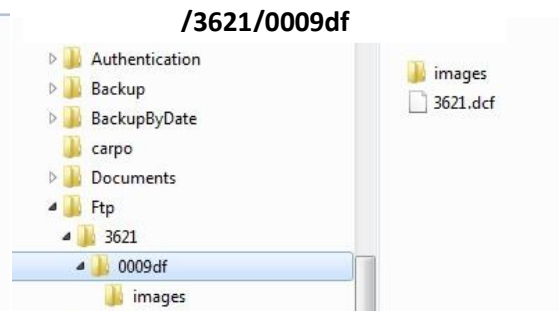


Figure 6-9: Second subfolder on FTP

Second; there must a sub folder named with OUI number of the product. Again considering MB70 it should be 0009df. In OUI folder we should have our DCF file. For this document it is 3621.dcf (DCF_OF_PRODUCT.dcf) Third sub-folder is the one where download images exists.

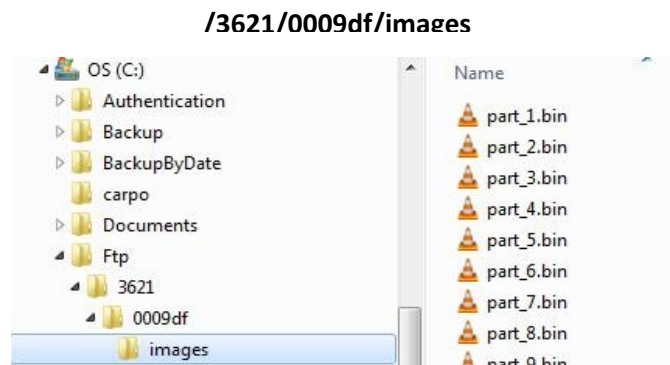


Figure 6-10: Third subfolder on FTP

Shortly first folder contains ping.me, second folder contains DCF file, third folder contains all release images

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7. Starting FTP Update

It is simple to start Ftp update after this steps. You should go to service menu of Tv and choose 'Force Software Update' on 'Remote Interface'. Tv should show a message after a few minutes like below picture.



Figure 7-1: Update Info Message