



# baramundi Management Suite | *Guide*

## Integration Fujitsu DeskView Client

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Last Change:

January 26, 2015    Update

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## Integration Overview

This integration is addressed to system administrators, already managing Fujitsu systems on a system- and BIOS-level with the baramundi Management Suite. To do so, Fujitsu offers system-related tools of their DeskView Client family. With integration, these tools will be usable via baramundi. Such an integration supports several scenarios.

### Operating System Migration

Many companies got used to Microsoft's Windows XP. But Microsoft dropped the support for Windows XP in 2014. Therefore, most devices need to migrate to newer operating systems like Windows 7. For this, however, one often has to update or configure the BIOS of a system. Take for example a hard disk controller configuration: Under Windows XP it was set to *IDE compatible mode*. You should switch this mode to *AHCI mode* for newer Windows operating systems.

Together with the bMS migration techniques you already know (e.g. *Backup/Restore* or *OS-Install*), a save and automated migration is possible.

### Secure System Configuration

Use the baramundi Management Suite to operate Windows devices safely and reliably. The bMS modules *Managed Software*, *Patch Management* and *Compliance* will help you to detect and to close security vulnerabilities.

Moreover, Fujitsu systems offer security features already on system- and hardware-level. Via baramundi *DeskView Integration* you can use and configure such features automated. Take for example the

- Pre-configuration of a System-TPM-Module for Bitlocker hard drive encryption
- Control of unsafe and therefore unwanted boot devices
- Control of external USB interfaces

### Rollout and Maintenance

Via baramundi *OS-Install* you can setup systems, automated. Using *Managed Software* and *Patch Management* will automatically keep your operating systems and applications up the date. With *DeskView Integration* you even can define the system's BIOS and BIOS-settings for a rollout and keep it up the date.

## Integration Possibilities

*DeskView Integration* offers a wide range of possibilities to work with.

### baramundi Licenses

The *DeskView Integration* uses bMS basic functions. Therefore, you'll need to have licenses to run single functions of the integration. These are the:

- *Deploy* module, to install a *DeskView* client and deploy *DeskFlash* and *BiosSet* jobs
- *Inventory* module, to take inventories of BIOS settings
- *OS-Install* module, to use a Windows PE environment via network

### Fujitsu DeskView Client License and Documentation

With this integration, you can connect *DeskView* client functions to the bMS. To download this integration does not mean you can use the *DeskView* functions, yet. You'll need a license to use it. The licensor is Fujitsu Technology Solutions\*. Refer to the Fujitsu product information sheet for licences details.

See for more detailed *DeskView Client* functions online at [www.fujitsu.com/fts/solutions/high-tech/solutions/workplace/manageability/deskview-admin/deskview-client.html](http://www.fujitsu.com/fts/solutions/high-tech/solutions/workplace/manageability/deskview-admin/deskview-client.html)

See, which systems will be supported by the *DeskView Client* online at [www.fujitsu.com/fts/solutions/business-technology/manageability/feature-finder.html](http://www.fujitsu.com/fts/solutions/business-technology/manageability/feature-finder.html) with the Feature Finder.

### DeskView Client as Installation Package

Get the *DeskView Client* as an installation package, to install it on target systems. You can use its functions—e.g. BIOS updates or BIOS settings—via integration applications or with own scripts. There is more *DeskView Client* information available on [www.fujitsu.com/fts/solutions/business-technology/manageability/downloads](http://www.fujitsu.com/fts/solutions/business-technology/manageability/downloads), the Fujitsu website.

### Update BIOS with DeskFlash

There is the *DeskFlash* tool integrated, to update the system BIOS. The *DeskView* manual provides information about *DeskFlash* details (see *BIOS Management/Archive & Update*). The integration includes *DeskFlash* as *Instant Tool Application* (see *DeskView* manual). You can create jobs to update the system BIOS with this application. Therein, you'll find parameter to configure the job.

\* <http://www.fujitsu.com/de/about/index.html>

## Change BIOS Settings with BiosSet

To change BIOS settings, the BiosSet tool was integrated. The DeskView manual will inform you about the BiosSet details (see *BIOS Management/Settings*). The integration includes BiosSet as *Instant Tool Application* (see DeskView manual). You can create jobs to change the BIOS settings. Therein, you'll find parameter to configure the job.

## BIOS Settings Inventory

The integration makes it possible to archive BIOS data via an user defined inventory template and save the results in a database. So, you can effectively plan BIOS modifications.

## Integration Usage

There are several aspects to consider if you want use the integration tools. You have to install the DeskView Client to create and execute jobs, update the BIOS and many more.

## Installation

Before you can deploy software via the baramundi management Suite, you will have to provide all the sources (DIP) and the object data to the bMS.

1. Open the *Import/Export* node under the *Extensions* module tab.
2. Select *New—Import File* under *Actions* and there the *.bdx*-file you want.
3. Double click on the opened import file. That will show you the objects, contained within the file.
4. Import the applications. To do so, select the *Import* option in the context menu.
5. Confirm your settings with *Yes*.

You'll find all the application objects within the database, now. Installation sources become available on the DIP. The procedure will create the following applications:

1. Fujitsu BiosSet 6.60.0118 (*Software/Windows-Applications*)
2. Fujitsu DeskView Client 6.60.0118 (*Software/Windows-Applications*)
3. Fujitsu DeskFlash 6.60.0118 (*Software/Windows-Applications*)
4. Fujitsu DeskViewInventory (*Inventory/Inventory Templates*)

*There is a FujitsuBIOSInventory.vbs script provided. You must copy this script into the installation folder of the Management Server under `...\Management-Server\Client`*



## Install/Uninstall DeskView Client

1. Select *Jobs—New—Jobs for Windows Devices*
2. Give the job an unique name
3. Select the job step *Install Software* with the appropriate application (here *Fujitsu DeskView Client 6.60.0118*)
4. Click on *Finish* to complete the job

The job to deploy the Fujitsu DeskView Client is now available under the *Jobs* node. From here, you can assign the deploy job. To do so, press the *Assign* action button. Select a target system. The server will execute the job. Remove the DeskView Client via an uninstall job:

1. Select *Jobs—New—Jobs for Windows Devices*
2. Give the job an unique name
3. Select the job step *Deinstall Application* with the appropriate application (here *Fujitsu DeskView Client 6.60.0118*)
4. Click on *Finish* to complete the job

*An error could occur, if you execute the installation routine several times on a client which already has installed the DeskView-Tools.*



## Create and Execute Integration Jobs

You can create, assign and execute integration jobs like standard Windows jobs. Select the execution parameter according to the chosen application. To do this, use the job step settings.

### BIOS Update

1. Select *Jobs—New—Jobs for Windows Devices*
2. Give the job an unique name
3. Select the first job step *Install Software* with the appropriate application (here *Fujitsu DeskFlash 6.60.0118*)
4. Configure the installation parameter
5. Assign the job to a Fujitsu Windows device

The screenshot (see figure 1) shows pre-defined parameters, forwarded to the DeskFlash tool:

**BIOS Image Path** This is the path to the BIOS file (*.bup*) you want to use (you can download the newest BIOS updates from the Fujitsu support website). We recommend to copy the BIOS update file to the DIP.

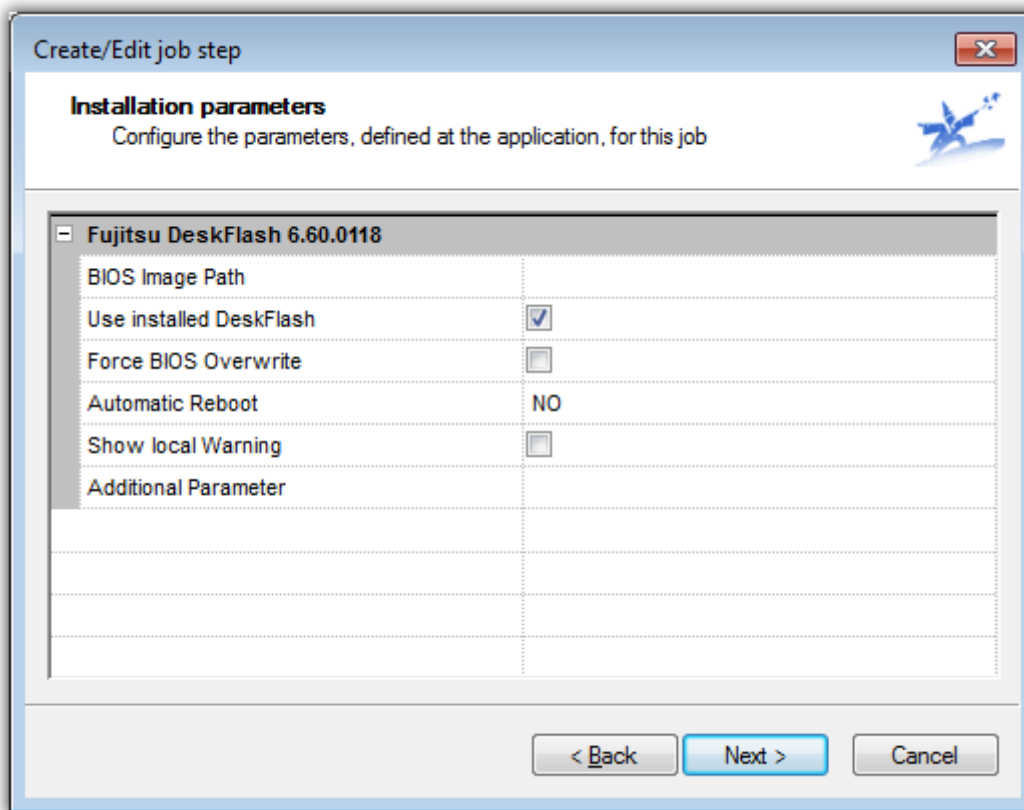


Fig. 1: DeskFlash Parameter

**Use Installed DeskFlash** If you use this parameter, DeskFlash doesn't need to roll out own libraries. Instead, it will use already installed libraries. This will make the process faster.

*If a DeskView Client is installed, you have to set the useinstalled parameter. Otherwise, you cannot execute DeskFlash and get an error code.*



**Force BIOS Overwrite** With this parameter, you may overwrite the BIOS even if no newer version is available. You also may overwrite an already existing archive file.

**Auto Reboot** This parameter controls automatic reboots after an update (as of version 6.10.). You can set Yes, No and Force.

**Show Local Warning** Via this parameter you can switch off/on warning notices.

**Additional Parameter** These are additional parameters you can attach if you want to. Separate the inputs by spaces (we'll assume that the parameter input is correct).

*The system will add the /s (for silent) parameter, automatically. So, the user doesn't have to interact with the system.*



## BIOS Settings Inventory

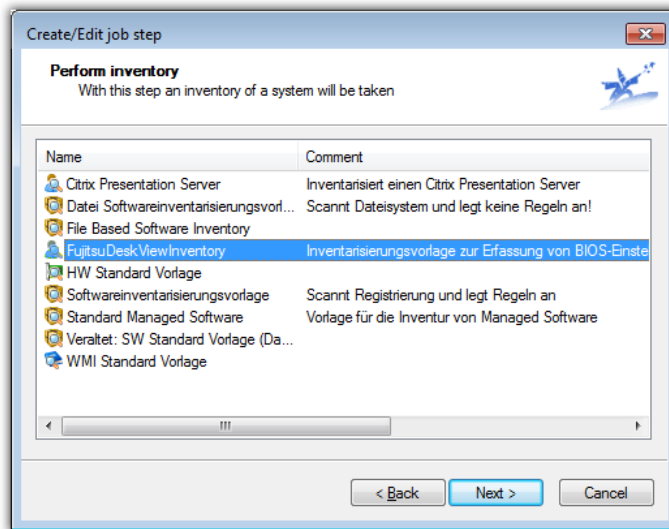


Fig. 2: Inventory Template

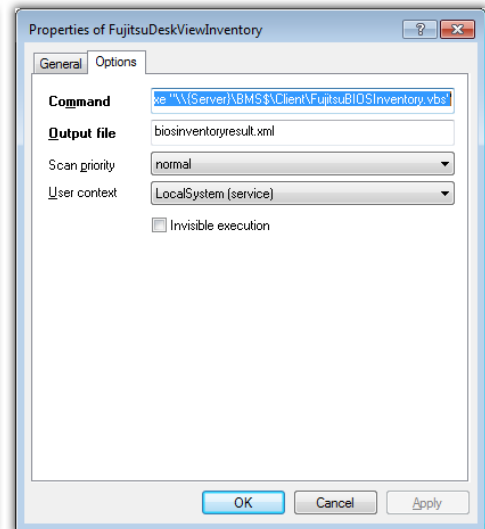


Fig. 3: Inventory Script

1. Select *Jobs—New—Jobs for Windows Devices*
2. Give the job an unique name
3. Select the first job step *Perform Inventory* with the appropriate application (here *Fujitsu DeskViewInventory*)
4. Assign job to a Fujitsu system

The configuration variety of a BIOS depends on the system or on the version installed. To get an overview of available settings of a target system you can perform a BIOS inventory with an user defined inventory template. Such a template reads all relevant settings via VB script. Then, it translates those data in a bMS-conform format. The primary mechanism to acquire information is the BiosSet tool. Other BIOS settings are retrieved using WMI.

*You must install DeskViewClient on the target system before you can execute FujitsuDeskView-Inventory.*



*Copy the provided FujitsuBIOSInventory.vbs script manually on the bMS server (by default to \\{Server}\bms\$\Client, compare command in FujitsuDeskViewInventory properties).*



## Changing BIOS Settings

1. Select *Jobs—New—Jobs for Windows Devices*
2. Give the job an unique name



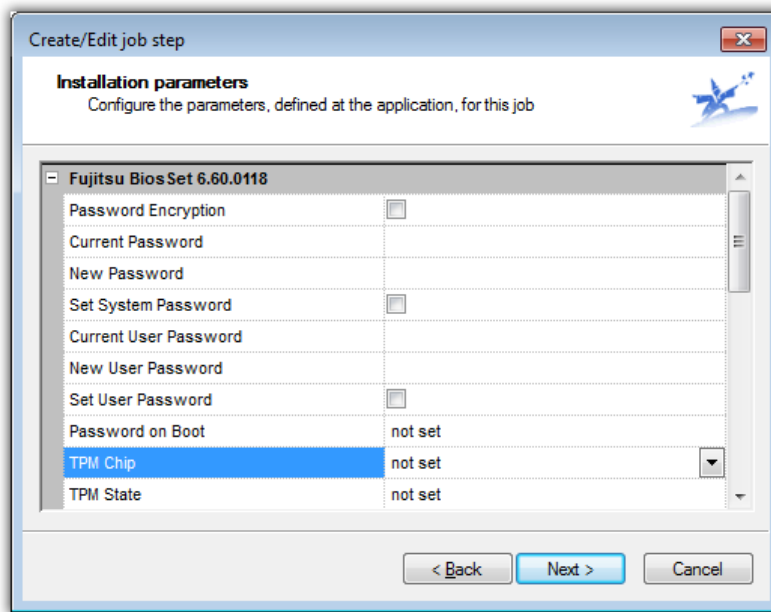


Fig. 4: BiosSet Parameters

3. Select the first job step *Install Software* with the appropriate application (here *Fujitsu BiosSet 6.60.0118*)
4. Assign job to a Fujitsu client

*The list of configurable parameters shows the usual BIOS settings. But, a certain BIOS does not support each and every setting! Therefore, perform a Fujitsu BIOS inventory job to identify the supported BIOS settings.*



To change some settings, you'll need a setup-password (e.g. TPM chip). So, give a password.

You can give passwords either in encrypted or unencrypted form. If you select the encrypted one, check the *Password Encryption* option. This option works for all passwords within the input mask shown as figure 4. You have to check the *Set Password* option to change a password. To reset a password, leave the password blank.

*If you reset the system-password, you also will reset the user-password.*



To get an encrypted password, use the BiosSet tool with the `BiosSet.exe /crypt=PW` command (PW for password in plain text). For more information on this subject, refer to the DeskView manual at <http://support.ts.fujitsu.com/Download/ShowDescription.asp?SoftwareGUID=274e643b-8ada-4cf6-960c-f20eed73fe48>

Some parameters accept freely definable character strings as input parameters (e.g. *Boot Order* and *Boot Order UEFI*). To ensure valid input values, please see the DeskView manual.

If the set value of a parameter is *not set*, the script routine will skip the execution of that certain configuration option. Figure 4 shows a number of parameters for the BiosSet tool.

**Password Encryption** If you set this option, the BiosSet tool will expect an encrypted input of passwords. The command line `BiosSet.exe /crypt=Password` generates such an encrypted password.

**Current Password** This password is the current BIOS system password. You'll need this password to change the settings within a password protected BIOS.

**New Password** If you want to change or set a BIOS system password, enter the value here.

**Set System Password** Check this option to set the BIOS to the *New Password* value.

**Current User Password** This password is the current user password.

**New User Password** Enter a value to set or change an user password.

**Set User Password** If checked, this option will change the user password to *New User Password*.

**Password on Boot** Here, you'll find the following entries:

- not set
- everyboot
- firstboot
- off

The option *Password on Boot* will be skipped if you select *not set*. The *everyboot* option will ask you for a password, during the boot procedure. *firstboot* will ask the same, but only at the very first boot. Via the *off* option, you can deactivate all password activities.

**TPM Chip** Activate/Deactivate the TPM (Trusted Platform Module) chip with this parameter.

**TPM State** This parameter controls the state of the TPM Chip. Select *off* to disable the TPM chip.

**Enable USB 1.1** Activates/Deactivates USB 1.1

**USB Controller** Activates/Deactivates USB host controller

**Front USB Ports** Activates/Deactivates front USB ports

**USB Legacy** Activates/Deactivates USB legacy mode

**USB Ports Strategy** With this parameter, you decide what to do with unused ports. You can chose between the following options:

- not set
- disable storage and hub
- disable unused
- enable all
- enable keyboard and mouse

The option *not set* will skip the setting. With *disable storage and hub* checked, you cannot connect any mass storage devices (USB sticks, external hard disks) to the computer. *Disable unused* defines that an user cannot use free USB ports anymore. With a click on *enable all* you'll lift all restrictions given before. Via the *enable keyboard and mouse* option, you'll allow to use a USB-mouse and USB-keyboard only on USB-ports.

**Rear USB ports** Activates/Deactivates the USB ports at the back of the computer

**SD Card Reader** Activates/Deactivates the on-board SD card reader

**WLAN** Activates/Deactivates the WLAN module

**Bluetooth** Activates/Deactivates the Bluetooth module

**LPT** Activates/Deactivates the Line Printing Terminal (parallel interface)

**IR** Activates/Deactivates the infrared module

**Boot from Removable Media** If activated, an user can boot from mass storage devices (USB sticks, external hard disks &c.)

**Enable Boot Menu** Activates/Deactivates boot menu

**Boot Order** Via this text-field, you define the boot order of a system. Example: 1CD, 2F, 3HDD, 4LEG, 5LAN (for more information see DeskViewClient manual).

**Boot Order UEFI** This option defines the boot order of an UEFI-BIOS Example: 0x01-cdrom0, 0x02-Floppy0, 0x04-LAN0 (for more information see DeskViewClient manual).

**SATA Controller Mode** This Parameter defines in which mode the SATA controller should operate. There are the following settings available:

- not set
- disabled
- ide
- ide-native
- ide-enhanced
- ide-compatible
- ahci
- raid

For more information about the configuration mode, please see DeskView manual. If the value was set to *not set*, this setting will be skipped during script execution.

**Additional Parameter** Use additional parameters to delegate command line options directly to the BiosSet tool (e.g. BIOS options not yet supported by configurable parameters within the current version). In the text field you can enter several commands, separated by spaces (For more information to the syntax see DeskView manual).

## BIOS Update & Configuration with OS-Installation

Since version 2014R2 you can update/configure a BIOS before you install an operating system. To do so, you'll need several jobs: jobs for the BIOS update and BIOS configuration under Windows PE. If you want to update the BIOS together with an operating system installation, you'll need two jobs: the BIOS update job and the OS-Install job.

Please, do the following jobs only together with an OS installation. In case you wont use an existing OS anymore, use the above described jobs.

## BIOS Update in a Windows PE Environment

1. Select *Jobs—New—Jobs for Windows Devices*.
2. Give the job an unique name.
3. Select the first job step *Boot PXE Image*.
4. Select a boot environment (BIOS/UEFI).
5. Select the next job step *Execute Software in Windows PE* and the appropriate software (here Fujitsu DeskFlash 6.60.0118).
6. Configure installation parameter.
7. Open the job properties. Go into the *Extended* tab. Select under *At end of job* the *Shut-down system* option.
8. Assign the job to a Fujitsu Windows device.

You can also configure this job with *Wake on LAN*. Then, a turned-off client will start to execute the job.

*Please note: To run DeskFlash, you'll need at least 18 MB free storage of RAM disk within your Windows PE environment. This value may even higher, depending on your BIOS file. In case you don't have that much space, DeskFlash will stop (and so the BIOS update job) with an error message. This especially can occur if you use Windows PE 3.0 because this version offers only a small RAM disk. You can adjust the size of a RAM disk in an already generated .wim-file\* with this command: `dism /image:<Provided_Image_Path> /Set-ScratchSpace:<Size>`.*



In the following example we want to work on a x64-image to set the RAMDisk to 64 MB:

```
1 Dism.exe /Mount-Wim /WimFile: "C:\Program Files (x86)\baramundi\Management
2 Server\TFTPRoot\x64\sources\boot.wim" /index:1 /MountDir:C:\tmp
3
4 Dism.exe /image:C:\tmp /Set-ScratchSpace:64
5
6 Dism.exe /Unmount-Wim /MountDir:C:\tmp /Commit
```

## BIOS Configuration in a Windows PE Environment

1. Select *Jobs—New—Jobs for Windows Devices*.
2. Give the job an unique name.
3. Select the first job step *Boot PXE Image*.
4. Select a boot environment (BIOS/UEFI).
5. Select the next job step *Execute Software in Windows PE* and the appropriate software (here Fujitsu BiosSet 6.60.0118).

\* <http://technet.microsoft.com/de-de/library/dd799244%28v=ws.10%29.aspx>

6. Configure the appropriate installation parameter.
7. Open the job properties. Go into the *Extended* tab. Select under *At end of job* the *Shutdown system* option.
8. Assign the job to a Fujitsu Windows device.

You can also configure this job with *Wake on LAN*. Then, a turned-off client will start to execute the job.

### **OS Installation after a BIOS Update/Configuration**

BIOS changes require a system reboot. The job steps for update and configure the BIOS will shutdown the machine after a successful job execution. For an OS installation after BIOS changes, use the job type *Active with WakeOnLan* within the *General* tab of the job properties. That makes sure that the client will start again to do the OS install job.