

# Using RemoteUX to Apply xSeries Driver and Firmware Updates Remotely

## Planning / Implementation (withdrawn product)

### Main

UpdateXpress automatically detects current device driver and firmware levels and presents them to the user. It then gives you the option of selecting specific upgrades or allowing UpdateXpress to update all of the system levels it detected as needing upgrades.

UpdateXpress is available from <http://www.ibm.com/pc/support/site.wss/MIGR-53046.html>

There are three ways to use the UpdateXpress CD:

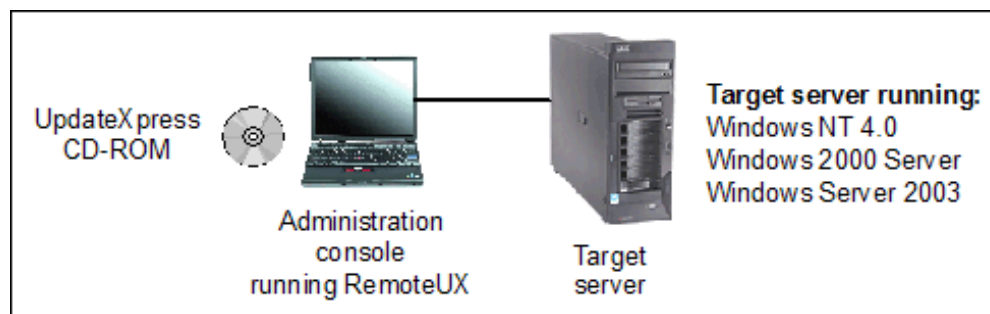
- Locally at the server by booting from the CD
- Locally by loading the CD (autorun) from Windows
- Remotely using the RemoteUX command-line utility on the CD

This Technote describes the use of RemoteUX.

RemoteUX works only with Windows-based servers and connects to them remotely via the administrative shares (C\$, ADMIN\$). Firmware updates are performed by writing data to available sectors on the first track of a disk in the remote server using PowerQuest Virtual Boot Environment.

**Note:** RemoteUX works only on Windows workstations and only with remote servers running Windows NT 4.0, Windows 2000 Server, or Windows Server 2003.

The figure below shows a typical network diagram for running UpdateXpress remotely.



The UpdateXpress CD-ROM can be either in a drive on the local administrator workstation or copied to a network share. If you are using the network share option, specify its location as part of the RemoteUX command.

The syntax for RemoteUX is:

remoteux \\targetserver parameters command

The options specify how to connect and where the UpdateXpress files are to be sourced from. The parameters are shown in Table 1. If no parameters are specified, the following are used:

- UpdateXpress files are in the current local directory.
- Use c\$\temp on the remote server for temp space.
- Log in to the remote server using the current user ID and password.

Table 1: RemoteUX parameters

Options	Meaning
-r:path -remote:path	Specifies the staging or working directory path of the target server. The default is C\$\temp. Format is shareName\path.
-l:path -local:path	Specifies the path where the UpdateXpress CD image is stored. The default is the current directory.
-n -nowait	Specifies that RemoteUX should not wait for the remote process to complete before exiting. For updates that require a system restart (firmware updates), waiting means exiting the RemoteUX application as soon as the update is scheduled or fails to schedule because of an error.
-u:user -user:user	Specifies the administrator user ID to connect to the remote server. The default is the current user name.
-p:password -pwd:password -p:*	Specifies the password to use to connect. Specifying * instructs RemoteUX to prompt you to enter a password.

The commands you can issue let you query what levels of firmware and drivers are already installed and to apply updates. The possible commands are shown in Table 2.

Table 2: RemoteUX commands

Commands	Meaning
-c -compare	Compares and displays the firmware and device driver levels on the remote system with what is available on the UpdateXpress CD.
-e -examine	Displays the current firmware and driver levels. It also reports the model number of the remote server.
-pkg:pkg.exe -package:pkg.exe	Remotely run pkg.exe, which is a "Package for the Web" package. Only one update can be pending on a remote server at a time. Use the -local parameter to specify the local directory if necessary. Use -a to pass additional arguments to the package file.
-a args	Passes optional arguments to the package update. A frequently used argument list is -a -r, which performs an immediate restart after scheduling the update package. This causes your system to reboot after applying the update. See Table 3 for a complete list.
-d -drivers	Updates device drivers on the remote server. This pushes the suitable device drivers from the CD to the target, and then remotely launches UpdateXpress. UpdateXpress identifies the updates that each system requires and automatically updates the server.
-f -firmware	Updates all firmware on the remote server. This pushes the firmware updates from the CD to the target. A reboot is scheduled to apply the updates, or you can force an immediate reboot with the -f -a -r parameters.
-g -getlog	Get the ux.log file from the remote server. This file is c\$\uxlog\ux.log on the remote server.
-clr -clearlog	Delete the ux.log file on the remote server.

The -a command lets you pass parameters to the "Package for the Web" package. The syntax is as follows:

For driver updates the optional arguments are:  
[-s] [-a [-s] | [-x directory] ]

For firmware updates the optional arguments are:  
[-s] [-a [-s] | [-r] | [-c] | [-x directory] | [-xd] ]

Notice that the -a argument is used to pass to the install package.

Table 3: Parameters for the -a command

Argument	Driver	Firmware	Meaning
-s	Yes	Yes	Installs the package software silently and does not prompt you if files must be overwritten in the %temp% directory.
-a	Yes	Yes	Passes all package subsequent commands to the install package.
-s	Yes	Yes	(The second -s parameter) Installs the update silently and unattended. Drivers are installed immediately; however, a reboot may be required before updates are applied. For firmware, the update is scheduled to run on the next reboot. A reboot can be forced with the -r option.
-x dir	Yes	Yes	Extracts the update to a directory. The default is the remote server's %TEMP% directory.
-r	No	Yes	Schedules the update (can be used with or without the -s option) and reboots immediately.
-c	No	Yes	Cancel any scheduled firmware update and writes an entry to the log file.

Tip: Only one firmware package can be scheduled at a time. If a firmware update must be applied instead of the currently scheduled firmware update package, cancel the current update package by running the -c option on any firmware package, then run the applicable firmware package.

For example, to view the current levels of firmware and drivers on a remote xSeries 345 and compare them to the UpdateXpress CD, use the -c (or -compare) command:  
remotex \\9.42.171.144 -u:Administrator -p:\* -c

Results of the compare command:

---

```
H:\UX\Disk 1>remoteux \\9.42.171.144 -u:Administrator -p:* -c
RemoteUX V1.2 for Windows 2003/2000/NT4
Password:
Connecting to remote service....
Remote Machine=\\9.42.171.144 Model Number=8670 Server Type=xSeries 345
Copying examination tools to remote server.
Please wait.....
Comparing system levels in server \\9.42.171.144 started at 10:45 AM on 03/21/2005 against UpdateXpress
3.06
NOTE: Some versions of the IBM Service Processor may not be compatible with this utility.
```

Type	Name	System Level	CD Level	New
F	POST/BIOS	61A	60A	
F	System diagnostics	T20	T20	
F	ISMP	20A	22A	X
D	symmpi.sys	1.08.18.00	1.09.06.00	X
F	IBM RSA II Firmware	GEE840A	GEE836A	
D	e1000325.sys	6.3.6.31	7.3.13.0	X
D	IBM RSA II Driver	5.33	5.32	

The first column of the output of the compare command specifies whether the entry is firmware or driver. The last column indicates which entries are eligible to be updated by your version of UpdateXpress. In the above example, one firmware (ISMP) needs updating and two drivers (the LSI Logic SCSI driver, symmpi.sys and the Intel Gigabit driver, e1000325.sys) need updating.

To update the firmware of the remote server, issue the -f (or -firmware) command:  
remoteux \\9.42.171.144 -u:Administrator -p:\* -f

Output from the firmware command to update all firmware on the remote server:

```
Connecting to remote service....
Remote Machine=\\9.42.171.144 Model Number=8670 Server Type=xSeries 345

Copying required UpdateXpress source to \\9.42.171.144.
Please wait.....
Running UpdateXpress on the remote machine...
Completed running UpdateXpress on the remote machine
```

Firmware typically requires a reboot. To confirm this, retrieve the UpdateXpress log using the -getlog command:

```
Connecting to remote service....
Remote Machine=\\9.42.171.144 Model Number=8670 Server Type=xSeries 345
03:10:2005 13:31:34,Update=BIOS,New=1.19,Status=Success,ReturnCode=0
[Remote UpdateXpress Firmware Update]
Scheduled at 17:15:32 - 03:21:2005 returns=0
```

Notice from the above output that the update is scheduled at a later time. You cannot control the scheduled time but you can reboot the server manually sooner if you wish. Alternatively, you could have specified a reboot to happen immediately:  
remotoux \\9.42.171.144 -u:Administrator -p:\* -f -a -r

After the reboot and the update, the -getlog command contains the following:

---

```
Connecting to remote service.....
Remote Machine=\\9.42.171.144 Model Number=8670 Server Type=xSeries 345
03:10:2005 13:31:34,Update=BIOS,New=1.19,Status=Success,ReturnCode=0
[Remote UpdateXpress Firmware Update]
Scheduled at 17:15:32 - 03:21:2005 returns=0

03:21:2005 12:38:12,Update=Tape drive microcode,Old=,New=Many, Status=No supported tape device
found,Error,ReturnCode=2
03:21:2005 12:38:12,Update=SCSI hard disk drive microcode,Old=,New=Many, Status=Error,
ReturnCode=1
03:21:2005 12:38:12,Update=RSA II Video BIOS,Old=Unknown,New=001, Status=Error, ReturnCode=2
03:21:2005 12:38:12,Update=Integrated Systems Management,Old=20A,New=22A,
Status=Success, ReturnCode=0
12:38:12.42p 03-21-2005, Update=RemoteUX Firmware, Status=Complete, ReturnCode=0
```

---

As you can see from the log (and as was seen during the update process), several updates were attempted. For information about the return codes, more details about how UpdateXpress works, and ways to determine the cause when failures occur, consult the online help by launching index.htm from the UpdateXpress CD-ROM.

**Note:** You should periodically clear the log file using the -clearlog command. When the file size reaches 4 MB, the output of updates will not be written to the file.

## Related product families

Product families related to this document are the following:

- [System Utilities](#)

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