POWER Systems Client Care Electronic Tools

Firmware Level Recommendation Tool (FLRT)

V1.2

Reporting & Inventory

Firmware & HMC Version Update

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What is FLRT

- FLRT (Fix Level Recommendation Tool) is designed for System p servers running AIX on POWER6, POWER5/5+ and BLADE systems.
- FLRT is a health check tool used by customers to compare current system fix levels against recommendations from IBM.
- Product data is maintained in an XML database running on a Websphere based solution.
- Located at www14.software.ibm.com/webapp/set2/flrt

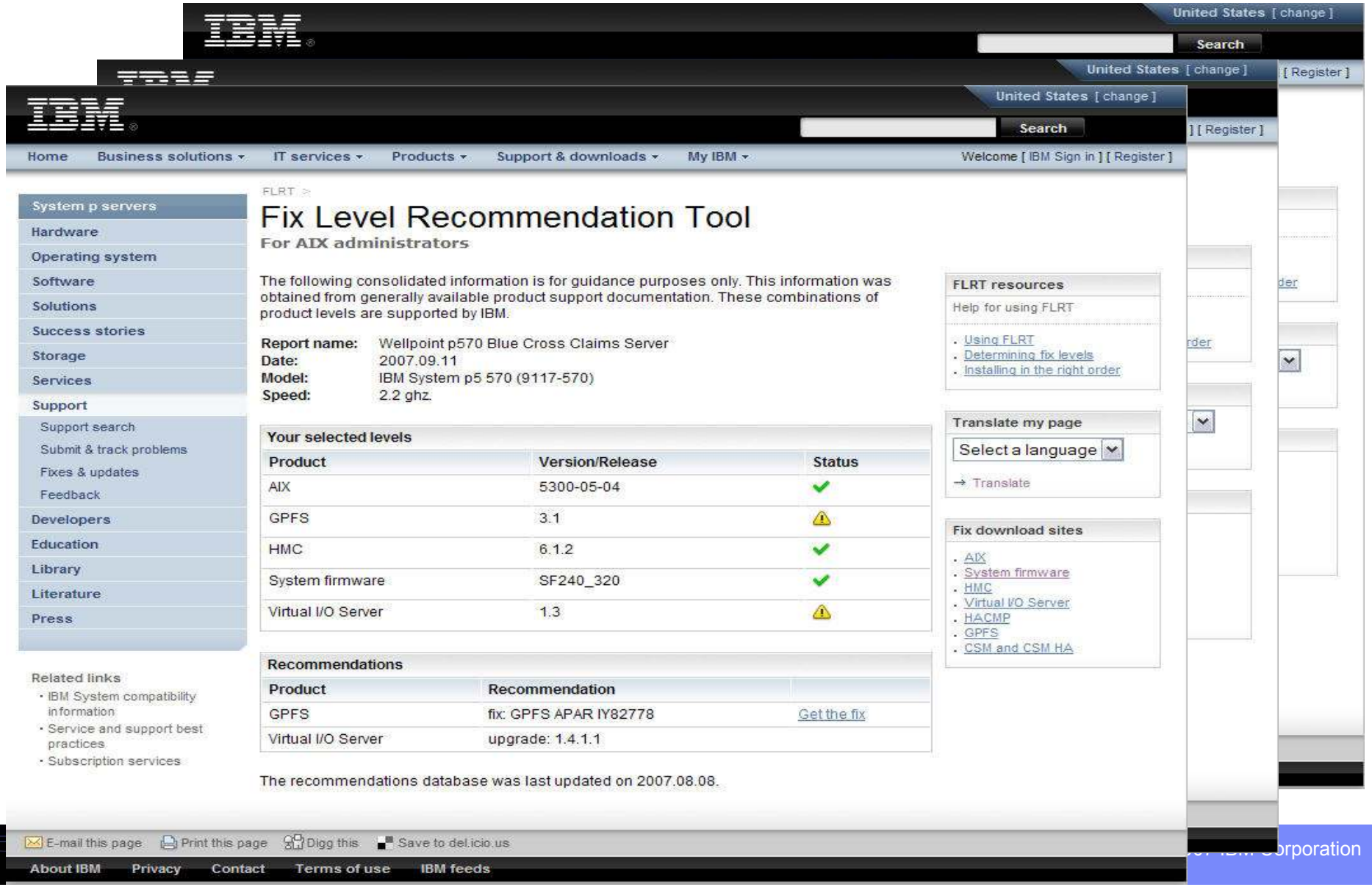
Products currently supported

- **System firmware**
  for p6, p5+, p5
  & Blade
- **HMC**
  7.3, 6.1, 5.2, 5.1, 4.5
- **AIX**
  6.1, 5.3, 5.2
- **Virtual I/O Server**
  1.4, 1.3, 1.2, 1.1
- **HACMP**
  5.4, 5.3, 5.2, 5.1
- **GPFS**
  3.1, 2.3
- **CSM**
  1.6, 1.5, 1.4

Recommendation types and Features

- **Recommendation types**
  - ✔ **"A OK" System is at or above recommendations**
  - ⚠ **"Take action" IBM recommends an update to one or more products**
  - **Could not recommend. Read why and try another configuration**
- **Features**
  - **Single product or multiple product recommendations**
  - **Guidance on which product update to apply first**
  - **Help on how to determine current levels**
  - **Supports scripting for recommended updates**
  - **What If – What if I were to update my firmware? Will I need to update my HMC too?**

FLRT Website - Current Release v2 (launched 12/4)



Order and Discovery

FLRT usage | Fix level determination | **Installation order** | Scripting help

The FLRT assists AIX system administrators in formulating a maintenance plan for IBM System p servers. If a FLRT report makes update recommendations, apply any updates in the recommended order.

Recommended installation order

Following is the recommended order for updatir

1. HMC
2. Firmware
3. VIOS
4. AIX 5L

After AIX 5L has been updated, HACMP, CSM, ar depends on CSM; therefore, it should be update

FLRT usage | **Fix level determination** | Ins

The FLRT assists AIX system administrators in fo p servers. It uses various code and fix levels to pro incompatibilities on your system.

How to determine processor speed and firmwar

Use these instructions to determine the processo and the level of products installed on that system.

- Processor speed
- AIX
- Firmware
- HMC
- Virtual I/O Server

Processor speed

Enter the following command to confirm the mode system:

Processor speed
Enter the following command to confirm the model number and processor speed of the system:
`prtconf`
Example output:
```
System Model: IBM,9117-570
Machine Serial Number: 104CAEC
Processor Type: PowerPC_POWER5
Number Of Processors: 3
Processor Clock Speed: 1502 MHz
```
Make a note of the System Model and the Processor Clock Speed.
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AIX
Use the oslevel command to display the highest recommended technology level installed on your system. For example:
`# oslevel -r`
Example output:
`5300-05`
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Firmware
Enter the following command:
`lsmcode -c`
Example output:
```
The current permanent system firmware image is SF240_219
The current temporary system firmware image is SF240_219
The system is currently booted from the temporary firmware image.
```
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HMC
HMC version and release information can be viewed locally at an HMC console by bringing up the Help menu and clicking on About Hardware Managment Console. You can also view this information, either locally or from a remote WebSM client, by going to
`Licensed Internal Code Maintenance -> HMC Code Update`
and then reading the status section. From the command line, you can display the current code level by running the following command:
`# lshmc -V`
Example output:
```
version= Version: 6
Release: 1.0
HMC Build level 20060801.1
MH00781: Required fixes for V6R1.0 (08-03-2006)
"."base_version=V6.1.0
```
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Virtual I/O Server
The VIOS command line user interface provides the ioslevel command that display the VIOS version information.
`# ioslevel`
Example output:
`1.3.0.0`
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High Availability Cluster Multi-processing
To determine the level installed on your server, enter the following command:
`# lslpp -h cluster*`
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Cluster Systems Management
Enter the following command to display the version of CSM installed on your server. Note that version displayed does not necessarily indicate that CSM is configured or operational.
`# csmconfig -V`
Use `lslpp -h csm*` to list all the filesets installed for CSM *, which may be at different levels (in a PTF configuration). For example, CSM 1.5.1.3 may have **csm.core 1.5.1.3** and **csm.server 1.5.1.2**, but the overall level is considered 1.5.1.3.
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CSM Highly Available Systems Management
Enter the following command to determine the level of CSM-HA installed on your server:
`# lslpp -h csm.ha*`
OR
`# lslpp -l | grep csm.hams`
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General Parallel File System
Enter the following command to determine the level of GPFS installed on your server:
`# lslpp -h gpfs*`
Example output:
`1.3.0.0`
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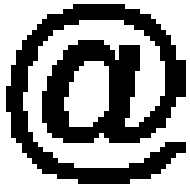
```
#/bin/ksh Sample script using wget to gather product versions and query FLRT.
# This current sample script provides commands for gathering MTM/AIX version/System Firmware. The rest of the product queries are samples which are commented out. Please provide additional samples through the feedback button at: http://www14.software.ibm.com/webapp/set2/sas/f/flrt/scripting.html

REPORTNAME=`hostname`

#Set all the values to empty, please do not modify this section:
MTMVALUE=""
GHZVALUE=""
AIXVALUE=""
SFIRMWAREVALUE=""
HMCVALUE=""
VIOSVALUE=""
HACMPVALUE=""
GPFSVALUE=""
CSMVALUE=""
CSMHAVALUE=""

#Uncomment relevant product sections .
# Determine the System Model
MTMVALUE=\&mtm=`prtconf | grep "System Model" | cut -f 2 -d ,`

# MHZ - processor speed.
MHZVALUE=\&mhz=`prtconf | grep "Processor Clock Speed" | cut -f4 -d " "`

# AIX service pack level.
AIXVALUE=\&aix=`oslevel -s`

# System firmware (booted) version
SFIRMWAREVALUE=\&sfirmware=`lsmcode -r system | cut -f1 -d " " | cut -f2 -d":"`

# HMC version requires a call to the HMC box. Using ssh is one way to do this.
# This requires setup of ssh which is not discussed here.
#HMC_OUTPUT=`ssh -l userid hostname.domain.com lshmc -V > hmc.out`
#HMC_VERSION=`grep -i version hmc.out | cut -f 3 -d " "`
#HMC_RELEASE=`grep -i release hmc.out | cut -f 3 -d " "`
#HMCVALUE=\&hmc=$HMC_VERSION.$HMC_RELEASE

#VIOSVALUE=\&vios=`ioslevel`

#HACMP version
#HACMPVALUE=\&hacmp=`lslpp -L cluster.es.server.rte | grep cluster.es.server.rte | cut -f3 -d":"`

#GPFS version
#GPFSVALUE=\&gpfs=`lslpp -Lc csm.gpfs | grep csm.gpfs | cut -f3 -d":"`

#CSMVALUE=\&csm=`/opt/csm/bin/csmconfig -V`
#CSMHAVALUE=\&csmha=`lslpp -Lc csm.hams | grep csm.hams | cut -f3 -d":"`

echo $REPORTNAME
../wget-1.9/src/wget
"http://www14.software.ibm.com/webapp/set2/flrt/query?format=text$MTMVALUE$MHZVALUE$AIXVALUE$SFIRMWAREVALUE$HMCVALUE$VIOSVALUE$HACMPVALUE$GPFSVALUE$CSMVALUE$CSMHAVALUE" -o

getflrt.stdout -O getflrt.rpt cat getflrt.rpt
```

Demo



http://www14.software.ibm.com/webapp/set2/flrt/home

Futures

Next Release - Version 3

- Support for more cluster products
  - Tivoli Workload Scheduler (LoadLeveler)
  - Deep Computing Visualization
  - Parallel Environment
  - Engineering & Scientific Subroutine Library
- Multi-system reports
  - Consolidated reporting
- Usability improvements
  - Highlight FLRTs many uses by driving customers to a task.
    - Do you want to verify your current system?
    - Do you want to run what-if scenarios?

Questions????