



# Open Source Used In Cisco 1100 Series Integrated Services Router Version 1.0

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## **1.1 ARM Trusted Firmware (ATF) 1.2**

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```
#ifndef _FDT_H
```

```
#define _FDT_H
```

```
/*
```

```
* libfdt - Flat Device Tree manipulation
```

```
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```

```
* Copyright 2012 Kim Phillips, Freescale Semiconductor.
```

```
*
```

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*/

```

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*/

```

```

#ifndef __ASSEMBLY__

```

```

#include <libfdt_env.h>

```

```

struct fdt_header {
    fdt32_t magic; /* magic word FDT_MAGIC */
    fdt32_t totalsize; /* total size of DT block */
    fdt32_t off_dt_struct; /* offset to structure */
    fdt32_t off_dt_strings; /* offset to strings */
    fdt32_t off_mem_rsvmap; /* offset to memory reserve map */
    fdt32_t version; /* format version */
    fdt32_t last_comp_version; /* last compatible version */

```

```

    /* version 2 fields below */
    fdt32_t boot_cpuid_phys; /* Which physical CPU id we're
        booting on */

```

```

    /* version 3 fields below */
    fdt32_t size_dt_strings; /* size of the strings block */

```

```

    /* version 17 fields below */
    fdt32_t size_dt_struct; /* size of the structure block */
};

```

```

struct fdt_reserve_entry {

```

```

fdt64_t address;
fdt64_t size;
};

struct fdt_node_header {
    fdt32_t tag;
    char name[];
};

struct fdt_property {
    fdt32_t tag;
    fdt32_t len;
    fdt32_t nameoff;
    char data[];
};

#endif /* !__ASSEMBLY */

#define FDT_MAGIC 0xd00dfeed /* 4: version, 4: total size */
#define FDT_TAGSIZE sizeof(fdt32_t)

#define FDT_BEGIN_NODE 0x1 /* Start node: full name */
#define FDT_END_NODE 0x2 /* End node */
#define FDT_PROP 0x3 /* Property: name off,
    size, content */
#define FDT_NOP 0x4 /* nop */
#define FDT_END 0x9

#define FDT_V1_SIZE (7*sizeof(fdt32_t))
#define FDT_V2_SIZE (FDT_V1_SIZE + sizeof(fdt32_t))
#define FDT_V3_SIZE (FDT_V2_SIZE + sizeof(fdt32_t))
#define FDT_V16_SIZE FDT_V3_SIZE
#define FDT_V17_SIZE (FDT_V16_SIZE + sizeof(fdt32_t))

#endif /* _FDT_H */
/*
 * libfdt - Flat Device Tree manipulation
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 *
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 *
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 \*/

```
#include "libfdt_env.h"

#include <fdt.h>
#include <libfdt.h>

#include "libfdt_internal.h"

int fdt_check_header(const void *fdt)
{
  if (fdt_magic(fdt) == FDT_MAGIC) {
    /* Complete tree */

```

```

if (fdt_version(fdt) < FDT_FIRST_SUPPORTED_VERSION)
    return -FDT_ERR_BADVERSION;
if (fdt_last_comp_version(fdt) > FDT_LAST_SUPPORTED_VERSION)
    return -FDT_ERR_BADVERSION;
} else if (fdt_magic(fdt) == FDT_SW_MAGIC) {
    /* Unfinished sequential-write blob */
    if (fdt_size_dt_struct(fdt) == 0)
        return -FDT_ERR_BADSTATE;
    } else {
        return -FDT_ERR_BADMAGIC;
    }
}

return 0;
}

```

```

const void *fdt_offset_ptr(const void *fdt, int offset, unsigned int len)
{
    const char *p;

    if (fdt_version(fdt) >= 0x11)
        if (((offset + len) < offset)
            || ((offset + len) > fdt_size_dt_struct(fdt)))
            return NULL;

    p = _fdt_offset_ptr(fdt, offset);

    if (p + len < p)
        return NULL;
    return p;
}

```

```

uint32_t fdt_next_tag(const void *fdt, int startoffset, int *nextoffset)
{
    const fdt32_t *tagp, *lenp;
    uint32_t tag;
    int offset = startoffset;
    const char *p;

    *nextoffset = -FDT_ERR_TRUNCATED;
    tagp = fdt_offset_ptr(fdt, offset, FDT_TAGSIZE);
    if (!tagp)
        return FDT_END; /* premature end */
    tag = fdt32_to_cpu(*tagp);
    offset += FDT_TAGSIZE;

    *nextoffset = -FDT_ERR_BADSTRUCTURE;
    switch (tag) {
    case FDT_BEGIN_NODE:

```



```

/* skip name */
do {
    p = fdt_offset_ptr(fdt, offset++, 1);
} while (p && (*p != '\0'));
if (!p)
    return FDT_END; /* premature end */
break;

case FDT_PROP:
    lenp = fdt_offset_ptr(fdt, offset, sizeof(*lenp));
    if (!lenp)
        return FDT_END; /* premature end */
    /* skip-name offset, length and value */
    offset += sizeof(struct fdt_property) - FDT_TAGSIZE
        + fdt32_to_cpu(*lenp);
    break;

case FDT_END:
case FDT_END_NODE:
case FDT_NOP:
    break;

default:
    return FDT_END;
}

if (!fdt_offset_ptr(fdt, startoffset, offset - startoffset))
    return FDT_END; /* premature end */

*nextoffset = FDT_TAGALIGN(offset);
return tag;
}

int _fdt_check_node_offset(const void *fdt, int offset)
{
    if ((offset < 0) || (offset % FDT_TAGSIZE)
        || (fdt_next_tag(fdt, offset, &offset) != FDT_BEGIN_NODE))
        return -FDT_ERR_BADOFFSET;

    return offset;
}

int _fdt_check_prop_offset(const void *fdt, int offset)
{
    if ((offset < 0) || (offset % FDT_TAGSIZE)
        || (fdt_next_tag(fdt, offset, &offset) != FDT_PROP))
        return -FDT_ERR_BADOFFSET;

```

```

return offset;
}

int fdt_next_node(const void *fdt, int offset, int *depth)
{
    int nextoffset = 0;
    uint32_t tag;

    if (offset >= 0)
        if ((nextoffset = _fdt_check_node_offset(fdt, offset)) < 0)
            return nextoffset;

    do {
        offset = nextoffset;
        tag = fdt_next_tag(fdt, offset, &nextoffset);

        switch (tag) {
            case FDT_PROP:
            case FDT_NOP:
                break;

            case FDT_BEGIN_NODE:
                if (depth)
                    (*depth)++;
                break;

            case FDT_END_NODE:
                if (depth && (--(*depth)) < 0)
                    return nextoffset;
                break;

            case FDT_END:
                if ((nextoffset >= 0)
                    || ((nextoffset == -FDT_ERR_TRUNCATED) && !depth))
                    return -FDT_ERR_NOTFOUND;
                else
                    return nextoffset;
        }
    } while (tag != FDT_BEGIN_NODE);

    return offset;
}

int fdt_first_subnode(const void *fdt, int offset)
{
    int depth = 0;

    offset = fdt_next_node(fdt, offset, &depth);

```

```

if (offset < 0 || depth != 1)
    return -FDT_ERR_NOTFOUND;

return offset;
}

int fdt_next_subnode(const void *fdt, int offset)
{
    int depth = 1;

    /*
     * With respect to the parent, the depth of the next subnode will be
     * the same as the last.
     */
    do {
        offset = fdt_next_node(fdt, offset, &depth);
        if (offset < 0 || depth < 1)
            return -FDT_ERR_NOTFOUND;
    } while (depth > 1);

    return offset;
}

const char *_fdt_find_string(const char *strtab, int tabsize, const char *s)
{
    int len = strlen(s) + 1;
    const char *last = strtab + tabsize - len;
    const char *p;

    for (p = strtab; p <= last; p++)
        if (memcmp(p, s, len) == 0)
            return p;
    return NULL;
}

int fdt_move(const void *fdt, void *buf, int bufsize)
{
    FDT_CHECK_HEADER(fdt);

    if (fdt_totalsize(fdt) > bufsize)
        return -FDT_ERR_NOSPACE;

    memmove(buf, fdt, fdt_totalsize(fdt));
    return 0;
}
#
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#

```

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#
```

```
LIBFDT_SRCS := $(addprefix lib/libfdt/, \
    fdt.c \
    fdt_addresses.c \
    fdt_empty_tree.c \
    fdt_ro.c \
    fdt_rw.c \
    fdt_strerror.c \
    fdt_sw.c \
    fdt_wip.c) \
```

```
INCLUDES += -Iinclude/lib/libfdt
```

## 1.2 Gobi Drivers SWI\_2.25

### 1.2.1 Available under license :

```
/*=====
FILE:
    GobiSerial.c

DESCRIPTION:
```

PUBLIC DRIVER FUNCTIONS:

GobiProbe  
GobiOpen  
GobiClose  
GobiReadBulkCallback  
GobiSerialSuspend  
GobiSerialResume (if kernel is less than 2.6.24)

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/\*=====

FILE:

GobiUSBNet.c

DESCRIPTION:

Qualcomm USB Network device for Gobi 3000

FUNCTIONS:

GobiNetSuspend  
GobiNetResume  
GobiNetDriverBind  
GobiNetDriverUnbind  
GobiUSBNetURBCallback  
GobiUSBNetTXTimeout  
GobiUSBNetAutoPMThread  
GobiUSBNetStartXmit  
GobiUSBNetOpen  
GobiUSBNetStop  
GobiUSBNetProbe  
GobiUSBNetModInit  
GobiUSBNetModExit

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## 1.3 mvpp2x (Marvell Ethernet Driver) 17.0.2

## 1.4 TianaCore UEFI EDKII 2.6.7

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The initial work to provide the UEFI implementation of Lua was done at

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In 1995, Guido continued his work on Python at the Corporation for National Research Initiatives (CNRI, see <http://www.cnri.reston.va.us>) in Reston, Virginia where he released several versions of the software.

In May 2000, Guido and the Python core development team moved to BeOpen.com to form the BeOpen PythonLabs team. In October of the same year, the PythonLabs team moved to Digital Creations (now Zope Corporation, see <http://www.zope.com>). In 2001, the Python Software Foundation (PSF, see <http://www.python.org/psf/>) was formed, a non-profit organization created specifically to own Python-related Intellectual Property. Zope Corporation is a sponsoring member of the PSF.

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1.3 thru 1.5.2	1.2	1995-1999	CNRI	yes
1.6	1.5.2	2000	CNRI	no
2.0	1.6	2000	BeOpen.com	no

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2.0.1	2.0+1.6.1	2001	PSF	yes
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2.2	2.1.1	2001	PSF	yes
2.1.2	2.1.1	2002	PSF	yes
2.1.3	2.1.2	2002	PSF	yes
2.2.1	2.2	2002	PSF	yes
2.2.2	2.2.1	2002	PSF	yes
2.2.3	2.2.2	2003	PSF	yes
2.3	2.2.2	2002-2003	PSF	yes
2.3.1	2.3	2002-2003	PSF	yes
2.3.2	2.3.1	2002-2003	PSF	yes
2.3.3	2.3.2	2002-2003	PSF	yes
2.3.4	2.3.3	2004	PSF	yes
2.3.5	2.3.4	2005	PSF	yes
2.4	2.3	2004	PSF	yes
2.4.1	2.4	2005	PSF	yes
2.4.2	2.4.1	2005	PSF	yes
2.4.3	2.4.2	2006	PSF	yes
2.4.4	2.4.3	2006	PSF	yes
2.5	2.4	2006	PSF	yes
2.5.1	2.5	2007	PSF	yes
2.5.2	2.5.1	2008	PSF	yes
2.5.3	2.5.2	2008	PSF	yes
2.6	2.5	2008	PSF	yes
2.6.1	2.6	2008	PSF	yes
2.6.2	2.6.1	2009	PSF	yes
2.6.3	2.6.2	2009	PSF	yes
2.6.4	2.6.3	2009	PSF	yes
2.6.5	2.6.4	2010	PSF	yes
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/\* nicstar.c v0.22 Jawaid Bazyar (bazyar@hypermall.com)

\* nicstar.c, M. Welsh (matt.welsh@cl.cam.ac.uk)

\*

\* Hacked October, 1997 by Jawaid Bazyar, Interlink Advertising Services Inc.

\* <http://www.hypermall.com/>

\* 10/1/97 - commented out CFG\_PHYIE bit - we don't care when the PHY

\* interrupts us (except possibly for removal/insertion of the cable?)

\* 10/4/97 - began heavy inline documentation of the code. Corrected typos

\* and spelling mistakes.

\* 10/5/97 - added code to handle PHY interrupts, disable PHY on

\* loss of link, and correctly re-enable PHY when link is

\* re-established. (put back CFG\_PHYIE)

\*

\* Modified to work with the IDT7721 nicstar -- AAL5 (tested) only.

\*

\* R. D. Rechenmacher <ron@fnal.gov>, Aug. 6, 1997

\*

\* Linux driver for the IDT77201 NICStAR PCI ATM controller.

\* PHY component is expected to be 155 Mbps S/UNI-Lite or IDT 77155;

\* see init\_nicstar() for PHY initialization to change this. This driver

\* expects the Linux ATM stack to support scatter-gather lists

\* (skb->atm.iovcnt != 0) for Rx skb's passed to vcc->push.

\*

\* Implementing minimal-copy of received data:

\* IDT always receives data into a small buffer, then large buffers



- \* as needed. This means that data must always be copied to create
- \* the linear buffer needed by most non-ATM protocol stacks (e.g. IP)
- \* Fix is simple: make large buffers large enough to hold entire
- \* SDU, and leave <small\_buffer\_data> bytes empty at the start. Then
- \* copy small buffer contents to head of large buffer.
- \* Trick is to avoid fragmenting Linux, due to need for a lot of large
- \* buffers. This is done by 2 things:
- \* 1) skb->destructor / skb->atm.recycle\_buffer
- \* combined, allow nicstar\_free\_rx\_skb to be called to
- \* recycle large data buffers
- \* 2) skb\_clone of received buffers
- \* See nicstar\_free\_rx\_skb and linearize\_buffer for implementation
- \* details.
- \*
- \*
- \*
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- \*
- \* M. Welsh, 6 July 1996
- \*
- \*
- \* /

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