



Market impact, Use of the CPRI Specification

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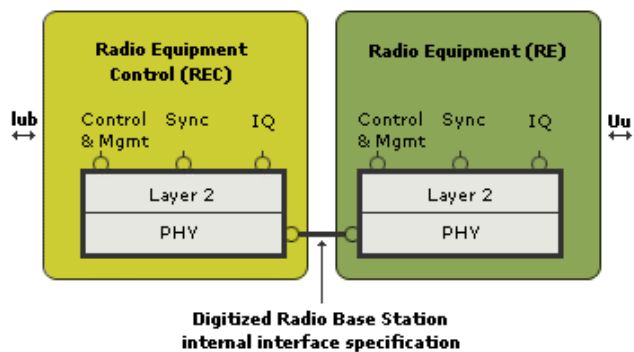
- ✎ The CPRI Specification
- ✎ Use of the CPRI Specification
- ✎ Future CPRI developments
- ✎ Market impact

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The CPRI Specification

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The CPRI specification



🔦 Specification scope:

- User Plane data, Control Plane transport mechanisms, means for synchronisation
- Layers 1 and 2 of the OSI stack
- Electrical and Optical interface

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Promotion of the CPRI Specification

☛ Publicly available on the CPRI homepage

– www.cpri.info

☛ What is made available?

- The complete Specification
- Updates of the Specification, as it evolves
- A form for comments and proposals to improve the Specification

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How to download the CPRI specification

Click here

www.cpri.info/spec.html

CPRI
Common Public Radio Interface

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Specification Overview

The first version of the CPRI interface specification will have the following scope:

1. A digitized and serial internal base station interface between 'Radio Equipment Control' (REC) and 'Radio Equipment' (RE) will be specified.
2. The necessary items for transport, connectivity and control are included in the Specification. This includes User Plane data, Control Plane transport mechanisms, and means for synchronisation.
3. The Specification will cover Layers 1 and 2 of the OSI stack.
 - 3a. The physical layer (layer 1) will support both an electrical interface (i.e. what is used in traditional base stations), and an optical interface (e.g. for base stations with remote radio equipment).
 - 3b. Layer 2 shall support flexibility and scalability.
4. The Specification shall comply with 3GPP UTRA FDD release 5.

Radio Equipment Control (REC)
Control & Mgmt | Sync | IQ | Layer 2

Radio Equipment (RE)
Control & Mgmt | Sync | IQ | Layer 2

TIME PLAN
The CPRI Specification is planned to be available in 2003. The Parties' individual objectives are to introduce products compatible to the Specification on the market by the end of 2004.

NEWS
October 9 2003
The CPRI Parties invite vendors of mobile telecommunications systems, and suppliers of radio equipment for such systems, to the "CPRI Day" in London on 18 November 2003.
[Read more](#)

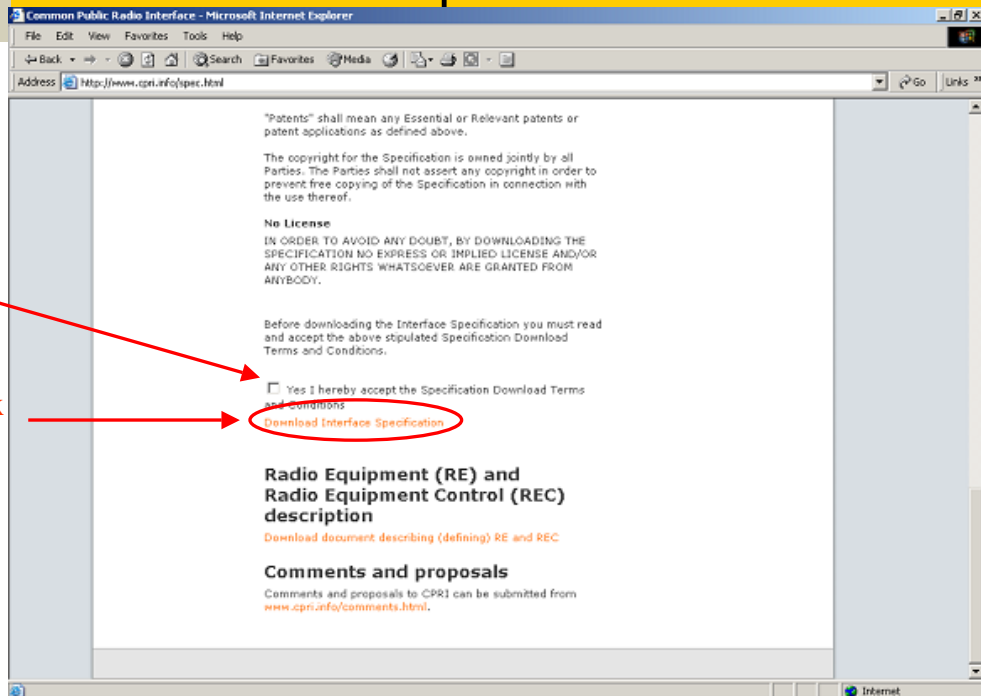
September 30 2003
Industry leaders launch new specification for 3G radio base stations (LPM1).
[Read more](#)

September 30 2003
CPRI specification now available for download.
[Read more](#)

How to download the CPRI specification

Mark this box to accept the terms and conditions

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Relationship to 3GPP standards

- ✦ The CPRI Specification follows the 3GPP Specifications Release 5
- ✦ The CPRI initiative is a complement to 3GPP
 - There are numerous similar technical co-operations where specifications for the mobile communication industry are defined, e.g. Bluetooth SIG, Open Mobile Alliance (OMA)



Use of the CPRI Specification

Product provisioning
Conditions for use ...
... including the small print

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Providing CPRI compliant products

- ✦ Additional details and functionality must be agreed by the buyers and sellers of RE products, for example:
 - Mechanics, Dimensions, Connectors
 - Higher layers (e.g. O&M)



NON-ASSERTION principle in layman's terms

- ✦ Objective:
 - To facilitate investment initiatives CPRI compliant components and products
- ✦ For the greatest industry benefit, the CPRI Parties have agreed on a non-assertion principle regarding CPRI Essential patents
- ✦ A precondition is that a user of the CPRI Specification does not assert Essential or Relevant patents relating to the Specification

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NON-ASSERTION Principle

- ✦ Under certain conditions, the CPRI Parties shall not assert any of their Essential patents against any Party or a third party using, developing, having developed, manufacturing, or having manufactured and/or selling any RE and/or REC product that includes an interface which is fully compliant to the CPRI Specification
- ✦ Conditions for the non-assertion commitment:
 - Full compliance to the CPRI Specification
 - Used for RE and/or REC products only
 - The user of the CPRI Specification does not assert their Essential or Relevant patents relating to CPRI
- ✦ For detailed information, see: www.cpri.info/principles.html

The
small
print !

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Terminology

- ✦ "Essential patents" means any Specification patents or patent applications of such a nature that a party could not, technically, manufacture and/or sell RE and/or REC products that include an interface which is fully compliant to the Specification without infringing such patent or patent application.
- ✦ "Relevant patents" shall mean any patents or patent applications whose claims subject matter can be used or interfaces with the Specification and that would be infringed by any product or application used or interfacing with the Specification.

The
small
print !

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No license statement at download

- ✦ **IN ORDER TO AVOID ANY DOUBT, BY DOWNLOADING THE SPECIFICATION NO EXPRESS OR IMPLIED LICENSE AND/OR ANY OTHER RIGHTS WHATSOEVER ARE GRANTED FROM ANYBODY.**

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Future CPRI developments

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Future releases of the CPRI specification

- ✦ Version 1.1 to be released May 2004
 - Minor updates and improvements
- ✦ Version 1.2 to be released Q3 2004
 - Additional recommendations relating to Electrical Interface
- ✦ Version 2.0 to be released 2H 2004
 - Cascading solutions major new content
- ✦ Products compliant to version 1.0 planned for release during 2004

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Contributing to the CPRI specification

- ✦ The CPRI Specification is available on the CPRI homepage
- ✦ A Web interface for comments is available on the CPRI homepage
 - <http://www.cpri.info/comments.html>
- ✦ All comments and suggestions will be considered

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Web Interface for comments

The screenshot shows a Microsoft Internet Explorer browser window titled "Common Public Radio Interface - Microsoft Internet Explorer". The address bar contains the URL <http://www.cpri.info/comments.html>, which is highlighted with a red box and a callout pointing to the text "www.cpri.info/comments.html". The website content includes a navigation menu on the left with items like Home, Press releases, FAQ, Contact persons, Specification, Definitions, and Legal. The main content area is titled "Comments and proposals" and contains a form for submitting comments and proposals. The form includes fields for Name, Company, E-mail, Phone, and Topic, along with a large text area for the Comment/Proposal. There are also sections for "TIME PLAN" and "NEWS" on the right side of the page.

Common Public Radio Interface - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <http://www.cpri.info/comments.html>

CPRI
Common Public Radio Interface

LANGUAGE: [IN ENGLISH](#) | [IN CHINESE](#) | [IN JAPANESE](#)

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Comments and proposals

This form is intended to allow submission of proposals and comments to the specification of the CPRI interface. Comments and proposals should be phrased in English. The input received here will be considered by the CPRI specification group.

Please note that this form is not intended for questions. If you have a question regarding CPRI, please consult the list of "Contact Persons" or the "FAQ" in the menu on the left hand side of this page.

Name:

Company:

E-mail:

Phone:

Topic:

(please choose the topic that is most applicable to your comment/proposal)

Comment/Proposal:

TIME PLAN

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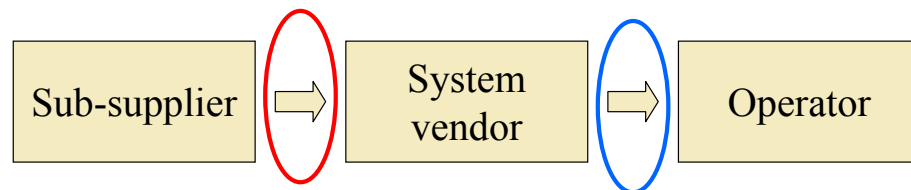


Market impact

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Value Chain unchanged



**The CPRI Specification
creates a basis for
the provisioning of
Radio Equipment
between sub-suppliers
and system vendors**

**System vendors continues
to take full responsibility
towards the operator**

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Benefits for sub-suppliers and system vendors

✦ Common benefits

- Simplified integration
- Hardware developed independently on each side of the interface

✦ Sub-supplier specific benefits

- Larger addressable market
- More easy for niche products to achieve large enough market
- Simplified variant handling

✦ System vendor specific benefits

- Broader Radio Equipment offering from sub-suppliers
- More efficient sourcing
- Shorter development cycles



Benefits for operators

✦ System vendors continue to take full responsibility for complete radio base stations, and for the delivery and continued evolution of complete systems and technical services

✦ A broader radio base station offering will be available with shorter time-to-market



CPRI Key success factors

- ✦ Simplicity – by just one interface
- ✦ Flexibility – enables product differentiation
- ✦ Availability – openly published specification

CPRI is happening now!

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CPRI - Common Public Radio Interface

Thank You For Your Attention !

Time for Q&A...

