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## **Reasoned opinion concerning Array Networks products and the scope of the RoHS and WEEE Directives**

**ERA Report No. 2006-0053**  
**ERA Project No. 043121734**  
**Commercial-in-confidence**

### **1 Requirement**

Array Networks has asked ERA to provide a reasoned opinion regarding the WEEE/RoHS Directive categorisation of its SPX and TMX products based on information provided and on its website, <http://www.arraynetworks.net/products/default.asp>, and specific guidance on issues which arise in consequence.

### **2 Review of Array Networks Products**

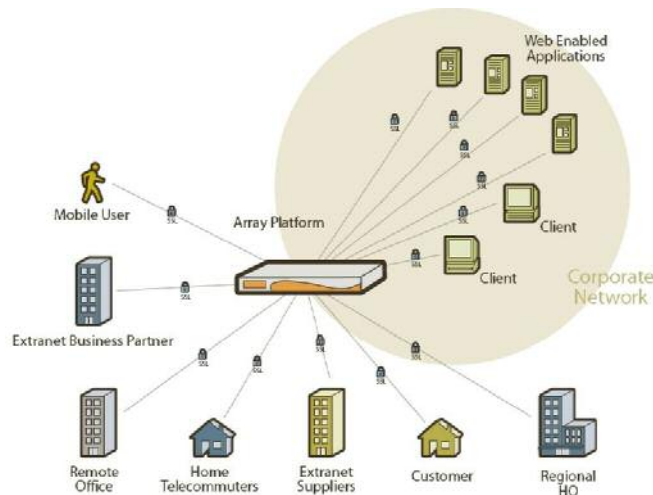
Array Networks make products which comprise components of a SSL VPN (secure sockets layer virtual private network). A virtual private network provides the means of connecting individual users or external offices to a main network over the internet. In a typical configuration a VPN device (or computer with VPN software installed) connects via the Internet to the main router of the main network. This connects to the Firewall and in turn to the VPN end point. The function of the latter is to connect to multiple external users, authenticate identities, encrypt/decrypt data and protect the main network. It is at this point in the network that Array Networks products sit, not at the user end.

Array Networks has asked ERA to assess its SPX and TMX products only.

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- Array SPX Series SSL VPN Access Gateways

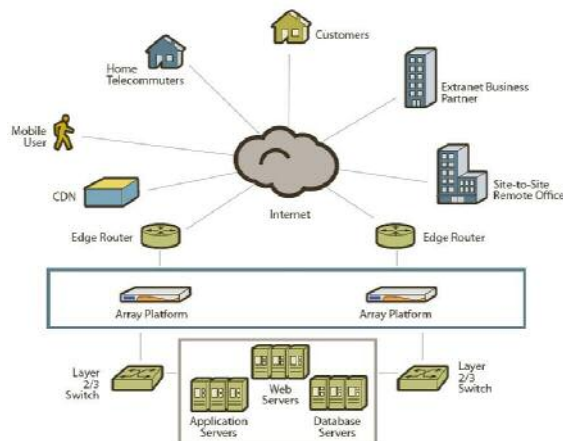
These represent a range of access gateways with capacity from 500 (SPX 2000) to 64,000 (SPX 5000) concurrent users. They are designed specifically for business-critical applications. They are particularly novel in that they combine the traditional SSL VPN devices with the firewall for enhanced network security. A typical configuration is shown in Figure 1.



*Figure 1. A typical network configuration in which Access Gateways are used*

- Array TMX Application Accelerators

Array TMX Series SSL SLB Application Accelerators combine virtually all the traditional data centre functions (e.g. server load balancing, SSL acceleration, compression, caching, and attack prevention) into one unit. A typical configuration is shown in Figure 2.



*Figure 2. A typical network configuration in which Access Gateways are used*

### 3 Scope of the WEEE and RoHS Directives

Equipment that is within the scope of the WEEE Directive is listed under 10 categories:

1. Large household appliances
2. Small household appliances
3. IT and telecommunications equipment
4. Consumer equipment
5. Lighting equipment
6. Electrical and electronic tools (with the exception of large-scale stationary industrial tools)
7. Toys, leisure and sports equipment
8. Medical devices (with the exception of all implanted and infected products)
9. Monitoring and control instruments
10. Automatic dispensers

The RoHS Directive applies to “electrical and electronic equipment” falling under categories 1-7 and 10 of the WEEE Directive (and to electric light bulbs and luminaires in households). The term “equipment” is not defined but it is helpful to consider that “equipment” is the product which is transferred to the first user.

The WEEE and RoHS Directives exclude any equipment that forms part of another piece of equipment that is itself outside the scope of the Directive. Therefore, as there are no categories for aircraft, trains, oil rigs, etc. as products or equipment, these are outside the scope - as is any equipment that is installed and an integral part of these. It has been suggested that “fixed installations” are outside the scope of WEEE and RoHS but, as there is no “fixed installation” category (and no reference to these in either Directive), this apparent exclusion should be interpreted with caution and the function of the installation itself needs to be considered.

Equipment is not within the scope of the WEEE Directive if it is itself part of something that is not within the scope of the WEEE Directive (Article 2.1). This exclusion also applies to the RoHS Directive<sup>1</sup>. For example, a radio in an aircraft would be outside the scope of WEEE and RoHS (as aircraft are not a WEEE category).

The status of some equipment is not clear. The EC’s FAQs<sup>2</sup> provide helpful but not legally binding guidance on grey areas. There is no official body that will provide a definitive decision on these issues and it is left to manufacturers to decide. Manufacturers can opt to comply with RoHS and so avoid the possibility of legal action or risk prosecution some time in the future. Opinions of WEEE registration bodies within EU vary with some taking the view that “fixed installations” are not excluded apart from LSIT whereas others exclude most “fixed installations”. ERA can provide an opinion but this has no

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<sup>1</sup> Decision made by the TAC on the 19<sup>th</sup> April 2005.

<sup>2</sup> [http://europa.eu.int/comm/environment/waste/pdf/faq\\_weee.pdf](http://europa.eu.int/comm/environment/waste/pdf/faq_weee.pdf)

formal legal status (nor would the opinion of anyone else including the EC or UK DTI). ERA's opinions are based on our understanding of the original intention of the WEEE and RoHS Directives.

### 3.1 Large-scale Stationary Industrial Tools

Under Category 6, "Electrical and electronic tools", an exclusion from the scope of both Directives is provided for large-scale stationary industrial tools (LSIT). LSIT have been defined in the FAQ guidance published by the European Commission. Equipment that would be regarded as LSIT would include an oil rig, a production line and probably a power station. These are all seen to perform the function of a "tool", i.e. something is produced, parts are fabricated, a physical change is made, etc. Equipment that is an integral part of the LSIT would be outside the scope of WEEE and RoHS. Equipment can be regarded as LSIT if it meets all of the criteria specified in the EC FAQ guide:

- Comprises an assembly of equipment and parts used for a specific task
- AND is installed by professionals
- AND is installed at a permanent location
- AND has a specific industrial purpose
- AND the LSIT is not intended to be placed on the market as a single functional or commercial unit (The size of tool is not given as a criterion). Note that the entire installed production process is the LSIT and individual items of equipment that are part of this are in effect "components" of the LSIT.

An automated production line for manufacture of consumer products would be regarded as an LSIT and would include the conveyer system, product production equipment, equipment installed to control the process and equipment towards the end of the line to place the product into its primary and then secondary packaging and to apply information labels to the packaging materials. Any equipment that is not attached to the line, including portable tools and instruments, would not be regarded as part of the LSIT. For example, a hand-held portable temperature sensor used to measure temperature at various locations within a factory (or elsewhere) would not be an integral part of the LSIT and would be a category 9 product. However, a temperature sensor permanently fixed to one location for measurement of temperature at this location and with a permanent link to the process controller would be regarded as part of the LSIT and so outside the scope of WEEE and RoHS.

## 4 WEEE/RoHS categorisation of Array Networks' Products

To fall within the scope of the WEEE/RoHS Directives a product must:

- meet the Article 3(a) electrical supply criterion,
- not be for military/national security purposes only,
- fall within one of the ten Categories given in Annex 1A of WEEE (1-7 and 10 for RoHS).  
Products that are part of equipment that is outside the scope of WEEE (and RoHS) would also be outside of scope.

In addition, a product or some components within it may be subject to exemption or exclusion from RoHS as defined by the Annex to RoHS and subsequent amendments.

### 4.1 Electrical supply criterion

All of Array Networks' products depend on electric current to function and are designed for use with a voltage rating not exceeding 1000 V AC and 1500 V DC and hence fall within Article 3(a) of the WEEE and RoHS Directives. The term "designed for use with" is taken to mean the supply voltage not any internally generated voltage.

### 4.2 Military/national security purposes only criterion

Article 2(3) of WEEE defines this exclusion which is also being applied to RoHS. The key issue is that the product must be designed solely for this purpose. For example, a normal personal computer used in a security application could be used for other purposes and would not meet this criterion. None of Array Networks' products meet this criterion. While many could be used in such an application it is not clear that any are designed specifically and only for this.

### 4.3 Falling within WEEE Categories criterion

#### "Part of"?

Article 2(1) of the WEEE directive states

*"This Directive shall apply to electrical and electronic equipment falling under the categories set out in Annex IA provided that the equipment concerned is not part of another type of equipment that does not fall within the scope of this Directive. Annex IB contains a list of products which fall under the categories set out in Annex IA."*

All of Array Networks' products form components of a telecommunications network and are specifically designed to be used in this application only. Hence they fall under Category 3 of Annex IA.

#### 4.4 Consideration of exemptions under Category 3 for Array Networks' products

An exemption is provided under Category 3 with the following wording:

*“Lead in solders for servers, storage and storage array systems, network infrastructure equipment for switching, signalling, transmission as well as network management for telecommunications”*

Non-legally binding guidance on the interpretation of this definition can be found in ERA's report for the European Commission which lead to the exemption. This definition is provided as Annex A to this report.

Note that the exemption applies to “lead in solders” (see Annex A for definition of “solder”) and not to other use of lead or to any of the other RoHS restricted substances.

The SPX and TMX products are considered against the criteria for this exemption.

*Network infrastructure equipment is defined as professional equipment used for the provision of telecommunication services between a number of locations, where*

	SPX	TMX
<i>The term “professional equipment” is defined as equipment, which has been designed primarily to serve high-reliability and availability public and business applications and which meets at least one of the two following criteria:</i>	Yes, designed specifically to enable high reliability operation in a business or public network. Normally systems are configured so that two or more units are either working in tandem or with one unit active and another on active standby so as to ensure redundancy in the event of failure of one unit.  Meets EN 55022, 1998 Class A EMC requirements which is for professional products.  If these elements in a systems were to fail it would disable the VPN and potentially many hundreds or thousands of users.	
- <i>Any system used for routing, switching, signalling, transmission, network management or network security in telecommunication applications;</i>	Yes, provides routing, network security. Also provides some network management capability.	
- <i>Any system which can simultaneously enable more than one end-user terminating equipment to connect to a telecommunication network;</i>	Yes, depending on the model provide from 500 to 64,000 concurrent user access to a network.	Yes, provides management and connections to 100 to thousands of servers and from 100 up to 10,000 data requests per second.

*And any system in a network except for end-user terminating equipment such as voice terminals, personal computers, facsimile machines, mobile phones, personal digital assistants, consumer-type modems and routers, and TV set-top boxes.*

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*This includes all components, power supplies, display devices and similar electronic units that are incorporated into network infrastructure equipment. It also includes all cables and cable assemblies and all connectors and connector assemblies use to provide interconnections for telecommunication network infrastructure equipment.*

## 5 Summary of status of Array SPX and TMX Networks Products

ERA considers that Array Networks' products fall clearly into Category 3 "IT and telecommunications equipment". Hence they must comply with both the WEEE and RoHS Directive.

In all cases they also fall within the definition of "network infrastructure equipment" and hence fall under RoHS exemption 7<sup>3</sup> allowing the use of lead in solders. Note that this exemption applies to "lead in solders" (see Annex A for definition of "solder") and not to other use of lead or to any of the other RoHS restricted substances. So for example the use of hexavalent chromium on metal parts is not allowed.

## 6 Review of the requirements of the legislation

This section reviews actions Array Networks could take with respect to WEEE and RoHS.

Array Networks into the EU via the following routes:

- "channel Partners" in the UK, Germany, Spain and Italy. These sell direct to end users or to system integrators,
- from the US direct to end users in the EU.

### 6.1 WEEE Directive

**The extent to which the following applies to Array Networks depends on how Member State authorities interpret legislation.**

#### 6.1.1 Responsibility

Responsibility for fulfilling the requirements of the WEEE Directive falls on the "producer" as defined in Article 3(i) as:

"any person who, irrespective of the selling technique used, including by means of distance communication in accordance with Directive 97/7/EC of the European Parliament and of the Council of 20 May 1997 on the protection of consumers in respect of distance contracts:

- (i) manufactures and sells electrical and electronic equipment under his own brand,

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(ii) resells under his own brand equipment produced by other suppliers, a reseller not being regarded as the ‘producer’ if the brand of the producer appears on the equipment, as provided for in subpoint (i), or

(iii) imports or exports electrical and electronic equipment on a professional basis into a Member State.”

Where product is sold under a manufacturer’s own name/brand, it must register with the registration body in each and every Member State if the manufacturer is seen as the “producer” as defined by the Directive (that is the party putting the product on the market in that state on a professional basis). In Array Networks’ case it sells

- via an importer (“channel partner”) who puts the product on the market so Array Networks is not the producer. In this case the importer is classed as the producer and so must register itself in that Member State. Note that to be a “producer” a company must be present as a legal entity in a member state and being selling product on a professional basis. Where the importer is selling directly to an end user in another member state and the importer has no legal presence in the latter state there is no “producer”; in this case, responsibility for end of life passes to the end user.
- direct to an end user from the US. Again, there is no “producer” in this cases so responsibility for end of life passes to the end user.

**In practice, this means that your importers should register in the EU countries where they are based.**

Note: foreign manufacturers (manufacturers based outside of the country to which products are placed on the market including those outside the EU) can register in some States on behalf of local importers, agents, sales staff. These include Holland, Belgium, Greece, Ireland and Luxembourg. Foreign manufacturers can also register in Hungary, even without local representatives. Most other countries had originally not planned to accept registration from foreign companies but Germany has altered their position so that US manufacturers can register and some other States are following.

### 6.1.2 Registration Information

The registration body will ask for

- Producer and product information
- Information on annual sales by weight but may ask for information on composition of the product. In Array Networks’ case they should report sales of B2B equipment but state that B2C sales are zero.

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<sup>3</sup> Commission decision of 21 October 2005, 2005/747/EC. [http://europa.eu.int/eur-lex/lex/LexUriServ/site/en/oj/2005/l\\_280/l\\_28020051025en00180019.pdf](http://europa.eu.int/eur-lex/lex/LexUriServ/site/en/oj/2005/l_280/l_28020051025en00180019.pdf)



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- Payment of a fee – this is to cover administration costs and varies from State to State.

Registration started on 13 August 2005 in some States but several Member States are late in setting up their infrastructure and registration has only just started or is yet to start. In the UK the WEEE legislation has not been passed and no system will be in place until 2007. WEEE registration bodies will provide their opinions on WEEE status based on their national interpretation but it is ERA's experience that very varied responses can be received and in some cases these may depend on how questions are phrased. Annex B provides a list of registration authorities in each Member State.

The “producer” (your channel partners) has two options how to go about this:

- a) Register directly and discharge responsibilities directly. This will require your importers to make commercial arrangements to deal with the allocation of (real physical) waste they will be asked to treat and to report on this. This option is normally unrealistic.
- b) Join a compliance scheme. For most producers the most practical option is to join a compliance scheme. In return for a fee, a compliance scheme takes on all end-of-life treatment obligations and liability for its members. The services most compliance schemes should provide would include; registration on behalf of its members (not in all cases) and provision of data, all treatment of WEEE, meeting targets set in the regulations for recovery and recycling for both scheme and for individual members, reporting the evidence of this to the authorities. A well run compliance scheme should be more cost effective than going it alone in most cases since it will benefit from economies of scale, good practice and understanding of this business and an ability to negotiate strongly with recyclers and logistics companies.

In most countries a number of compliance schemes are being established targeted at different sectors of the market - for example, retailers, white goods, business-to-business, which for a fee, will take on your physical and legal obligations. There are a number of schemes which might meet your requirements, the following is a list of examples in the UK, but there are other service providers (currently 12 in total):

- Valpak (includes IT and office equipment), [info@valpak.co.uk](mailto:info@valpak.co.uk). A B2B compliance scheme (including registration for the producer in other member states)
- Wastepack, Electrolink/wastelink, [info@electrolink.eu.com](mailto:info@electrolink.eu.com), Tel: +44 1279 603210
- REPIC <http://www.repic.co.uk/> – primarily but not exclusively retail
- B2B Compliance, primarily at Categories 8 and 9. Tel: + 44 1691 676124, [action@b2bcompliance.org.uk](mailto:action@b2bcompliance.org.uk)
- ERP - Currently covers Austria, Ireland, Portugal, Spain and intends to set up scheme in line with national legislation in France, Germany, Italy, Poland, UK. <http://www.erp-recycling.org>

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Compliance schemes should be approached now to assess the cost benefits of each. It is critical to evaluate the competence and suitability of a scheme before joining. A list of these is provided in Annex B.

### 6.1.3 Other WEEE requirements

Array Networks must also do the following for products within scope but note that EU State regulations are not consistent.

- provide data for end of life treatment facilities. This will include information on how to remove items specified in Annex II of the Directive (e.g. batteries).
- mark the product with the crossed out wheelie bin symbol and date information if it was put on the market after 13<sup>th</sup> August 2005 (but marking of components used within these products is not required). In general terms, any product which has its own enclosure should be so marked.
- provide data for customers on how to dispose of the product appropriately at end of life.

### 6.1.4 Other “producer” responsibilities

- for equipment placed on the market before 13<sup>th</sup> August 2005 but reaching end of life after that date
  - for B2B products, the producer is obliged to take responsibility for collection and finance the appropriate disposal of one equivalent item of equipment when selling a new product fulfilling the same function in most EU States - but the last user is responsible in France, Germany, Holland, Greece and Poland
  - finance for treatment of any other WEEE is the responsibility of the last user
  - producers and business users may make other financial arrangements
- for B2B equipment placed on the market after 13<sup>th</sup> August 2005 (later in some EU States)
  - the producer is obliged to take responsibility for and finance appropriate disposal
  - producers and business users may make other arrangements except in a few States such as Poland and Hungary
- report evidence of collection, treatment and disposal

The WEEE Directive applies to “equipment” so there is no “right to return” of parts or components but this could be included in a purchase contract. Some equipment users are already taking this approach.

Note that, as an Article 175 Directive, the WEEE Directive sets minimum standards. Individual member states have the right to impose tighter requirements and some widen the scope.

## 6.2 RoHS Directive

**The extent to which the following applies to Array Networks depends on how Member State authorities interpret legislation.**

RoHS applies to all of Array Networks' products. As such it is obliged to:

- remove the six restricted substances from its products (except for "lead solder" since this exemption applies) placed on the market from 1 July 2006. This applies to each individual product not to a design type.
- ensure that it is in possession of sufficient documentary information to satisfy itself and enforcement authorities that its products are RoHS compliant and that it is being diligent in ensuring this. (See ERA Guide <sup>4</sup>).

To ensure its clients' can make RoHS compliant product where necessary, Array Networks will evidently need to support the above requirements by supply complaint components and appropriate documentation.

Note that RoHS is an Article 95 (single market) Directive; as such, it must be essentially the same in all Member States.

### 6.2.1 Other RoHS issues

- *Change in exemptions.* It is very probable that the lead in solders exemption will be removed once lead-free alternatives have shown to be reliable. The earliest that this could occur is 2010. Array Networks should plan on the basis of making all of its products RoHS compliant by that date<sup>5</sup>.
- *Customer requirements.* Irrespective of the formal requirements of RoHS, Array Networks' customers may decide for various reasons to move to RoHS compliant products. In this case they will request information from Array Networks on the RoHS status of its products. Array Networks should consider what actions it might have to take in this event. Equally, Array Networks might decide that it makes good business sense to move to RoHS compliant products to gain market advantage.
- *Supply chain pressures.* The RoHS Directive is stimulating the development of other similar legislation worldwide (e.g. China), and other commercial pressures have generated a momentum driving lead and other RoHS materials out of manufacturing. The effect of this is being seen in changing of pcb designs, components etc. Array Networks should be aware that its suppliers may be making this move already and should assure itself of a continuing supply and identify if there

<sup>4</sup> A Guide to Compliance with the RoHS Directive (Issue 3),

<http://shop.era.co.uk/products.asp?category=Reports&subcategory=Environment+and+Recycling>

<sup>5</sup> ERA's newsletter RE<sup>4</sup>view provides a useful means of keeping up to date on changes in RoHS legislation and exemptions, <http://shop.era.co.uk/products.asp?recnumber=26>

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are any issues which need to be addressed as a result (e.g. reliability, withdrawal of critical components from the market etc.).

This report represents ERA's opinion based on wide experience of interpretation of the WEEE and RoHS legislation working with the European Commission, DTI, trade associations and industry worldwide. Note that this not is legally binding and opinions may vary.

We hope that you find this report clear and helpful. If you have any queries or require further assistance please do not hesitate to contact us.

authorised - sent electronically

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## **Annex A. Scope of exemption: Lead in solders for servers, storage and storage array systems, network infrastructure equipment for switching, signalling, transmission as well as network management for telecommunications**

### **1. Definition of “Solders”**

Alloys used to create metallurgical bonds between two or more metal surfaces to achieve an electrical and/or physical connection. The term “solder” also includes all materials that become part of the final solder joint, including solder finishes on components or printed circuit boards. This exemption applies to alloys containing tin and/or lead used as “solder”, as board coatings and as component termination coatings.

### **2. Definition of "server" product for the purpose of RoHS exemption:**

A "server" is defined as a computer that meets one of the technology criteria set out in section (a) below, and one or more of the functional criteria set out in section (b) below.

#### **(a) Technology Criteria For Server**

Designed and placed on the market as a Class A product per EuroNorm EN55022:1994 under the EMC Directive 89/336/EEC (whereas a Class B product is intended primarily for use in the domestic environment) and designed and capable of having a single or dual processor capability (1 or greater sockets on board).

Or

Designed and placed on the market as a Class B product per EuroNorm EN55022:1994 under the EMC Directive 89/336/EEC and designed and capable of having a minimum dual processor capability (2 sockets on board).

#### **(b) Functional Design Criteria For Server**

- i. Designed and capable of operating in a mission-critical, high-reliability, high-availability application in which use may be 24 hours/day and 7 days/week, and unscheduled downtime is extremely low (minutes/year).

Examples of typical server functions are given in items *ii* to *ix*:

- ii. Designed and capable of operating in a multi-user environment in which access to the computer or accompanying storage or storage array is not required of the user; or

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- iii. Designed and capable of operating as an intermediate step to process information, i.e. takes input from another system, processes that input, and passes it on to another system for further processing; or
- iv. Designed and capable of operating to provide network infrastructure services, (e.g. archiving); or
- v. Designed and capable of operating to provide gateway or switching services; or
- vi. Designed and capable of operating to host data on behalf of multiple users; or
- vii. Designed and capable of operating to allocate or manage user id's that can be used for remote logons, i.e. where physical access to the system is not required by the user; or
- viii. Designed and capable of operating to run a server-capable operating system (e.g. Windows NT, Windows 2000 Server, OS/400, OS/390, Linux, Unix and Solaris); or
- ix. Designed and capable of operating as a web server.

The exemption applies to the whole of the computer and its components including processors, memory boards, power converters, power supplies, enclosed housings, modular power subsystems and adapter cards. It also applies to the components as integrated into the whole computer or as sold separately for use in an exempt server. Cables and cable assemblies, and all connectors and connector assemblies used to provide interconnections for the server are also covered.

It should be noted that this exemption does not apply to parts or components that are peripheral to the server, nor does it apply to parts or components when they are used other than in an exempt server, storage or storage array system or networking product.

### 3. Definition of storage and storage array systems

EICTA recommends that "storage and storage array systems" be defined as any device or subsystem that meets at least one of the functional criteria (a) and one of the technology criteria (b) as set out below. The exemption applies to the whole of the device or a subsystem, including, but not limited to disc drives, disc arrays, tape drives/libraries and automated management.

(a) Functional Design Criteria for storage and storage array systems:

- i. Designed and capable of operating in a mission-critical, high-reliability, high-availability application in which use may be 24 hours/day and 7 days/week, and unscheduled downtime is extremely low (minutes/year).

Examples of typical storage and storage array functions are given in items ii through iv:

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- ii. Designed and capable of operating in a multi-user environment in which access to the storage or storage array is not required of the user; or
- iii. Designed and capable of operating to provide network infrastructure services, (e.g. archiving); or
- iv. Designed and Capable of providing long term data archival storage such as regulatory and/or compliance records as required by US and EU laws.

(b) Technology criteria for storage and storage array systems:

Designed and placed on the market as a Class A product per EuroNorm EN 55022:1998 under the EMC Directive 89/336/EEC

Or

Designed and placed on the market as a Class B product per EuroNorm EN55022:1998 under the EMC Directive 89/336/EEC and designed and meets one of the following criteria:

1. Any storage device or storage management device capable of accepting direct or switched input from more than one computer. As examples, but not limited to, fibre channel and SCSI devices allow for direct or switched input from more than one computer or
2. Any storage fabric or switching device for interconnecting storage devices to server products.

**4. Definition of Network Infrastructure for the purpose of RoHS**

In the Annex of Directive 2002/95/EC the use of lead in solders for telecommunication network infrastructure equipment is exempted. In order to define the boundaries of the telecommunication network infrastructure a number of manufacturers have taken the initiative to provide a recommendation as included in this document.

We recommend that the equipment falling under the “network infrastructure equipment” for telecommunications exemption would be defined according to functionality of the product. Telecommunication network infrastructure equipment can be located well beyond the service providers’ network demarcation points. As such, the lead-free exemption for network infrastructure equipment under RoHS should be based on long-term capital investment, reliability, availability and operability issues that must be addressed by all operators (service providers and private companies).

Network infrastructure equipment is defined as *professional equipment* used for the provision of *telecommunication* services between a number of locations, where

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The term “*professional equipment*” is defined as equipment, which has been designed primarily to serve high-reliability and availability public and business applications and which meets at least one of the two following criteria:

- Any system used for routing, switching, signalling, transmission, network management or network security in telecommunication applications;
- Any system which can simultaneously enable more than one end-user terminating equipment to connect to a telecommunication network;

And any system in a network **except** for end-user terminating equipment such as voice terminals, personal computers, facsimile machines, mobile phones, personal digital assistants, consumer-type modems and routers, and TV set-top boxes.

This includes all components, power supplies, display devices and similar electronic units that are incorporated into network infrastructure equipment. It also includes all cables and cable assemblies and all connectors and connector assemblies use to provide interconnections for telecommunication network infrastructure equipment.

The term “*telecommunication*” is defined as information transfer according to agreed conventions by means of wires, radio, optical or other electromagnetic systems. Any transmission, emission or reception of signs, signals, writing images and sounds or intelligence of any nature by wire, radio, optical or other electromagnetic systems. (Source: IEC 60050-714).



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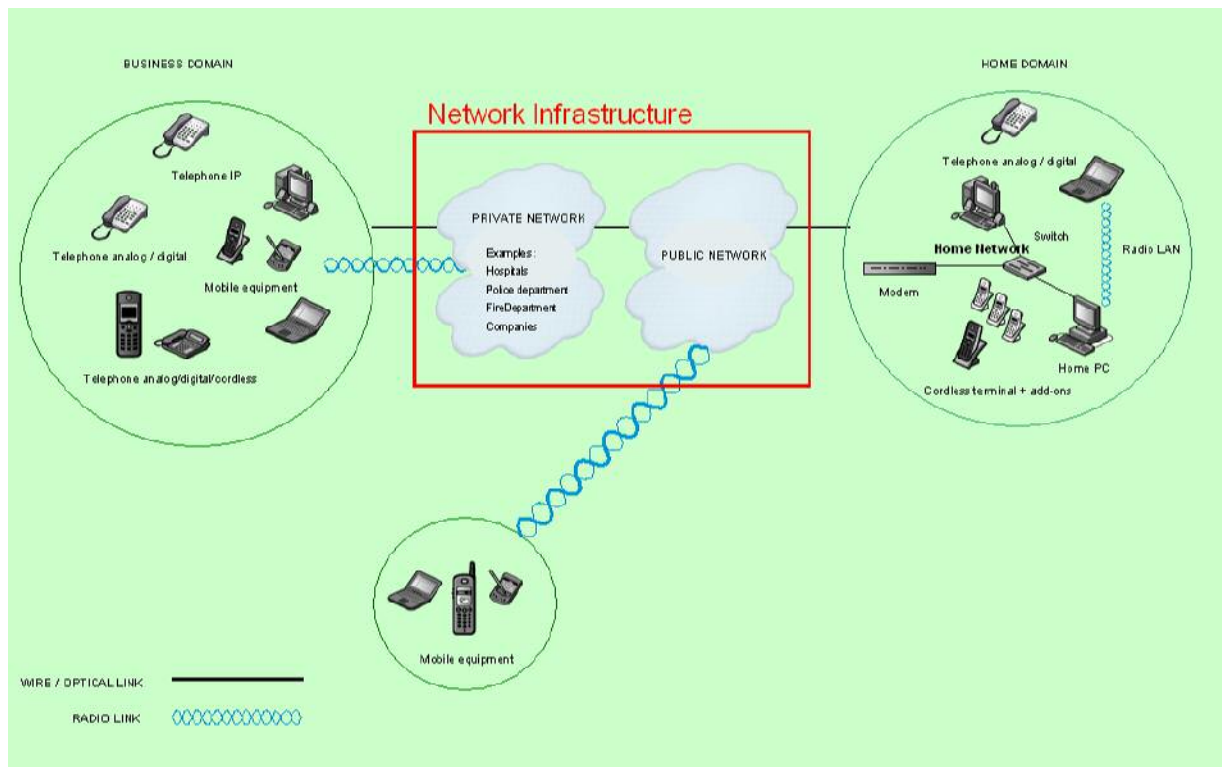


Figure 1. Boundaries in a typical telecommunications network for RoHS exemption

## 5. Parts for repair and upgrades

Equipment covered by this exemption (listed above in 2 – 4) and put onto the market after 1/07/06 will, at some time in the future, require repair using identical parts to the those types that were originally used to manufacture the product and which may contain lead in solders. This will be required for the normal lives of these products, which are at least 10 years and up to 30 years. Repairs and upgrades extend the life of these products whereas the alternative option of disposal would have a negative impact on the environment as well as being very costly for users.


Consistent with Article 2 of the Directive, spare parts for the repair, upgrade or to the reuse, of equipment covered by this exemption (listed above in sections 2, 3 and 4) and put onto the market after 1/07/06 are also exempted.

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**Annex B - Registration Body and relevant compliance scheme summary**

In the “Registration body” column, a grey shaded box means that registration is already possible or is imminent enough to make enquiry now.

Nov 05: Foreign manufacturers (manufacturers based outside of the country to which products are placed on the market and these could be outside the EU) can register in some States on behalf of local importers, agents, sales staff. These include Holland, Belgium, Greece, Ireland and Luxembourg. Foreign manufacturers can also register in Hungary, even without local representatives. Most other countries had originally not planned to accept registration from foreign companies but as Germany have altered their position, other States are likely to follow.

Country	Registration body	Compliance schemes	Visible fee	Financial guarantee
Austria	Umweltbundesamt (Federal Environment Agency). <a href="#">Register online</a> by 10 April 2006, (+43 1) 31 304 / 8000  * Clearing house Electroaltgerate-Koordinierungstelle (EAK) , +43 1 522 37 62-0	Reporting quarterly (units by type and collection category -there are five of these) - placed on market by 31/10/05 latest  <a href="#">EFH-Umweltforum Haushalt (UFH)</a> , all products.: +43 (0)800/10 44 10, <a href="mailto:info@ufh.at">info@ufh.at</a>  <a href="#">ERP</a> - 00.32.2.777.0538, email: <a href="mailto:info@erp-recycling.org">info@erp-recycling.org</a> -operational - all except lighting  <a href="#">Elektro Recycling Austria</a> , +43/1/595 26 36-0, <a href="mailto:office@era-gmbh.at">office@era-gmbh.at</a>  EVA - all categories	allowed for management costs of historical waste until 2011 (2013 for large appliances). Visible fee optional, retailers not obliged to show it.	Only required if not part of compliance scheme
Belgium	Must complete an <a href="#">"Entry Agreement"</a> with Recupel or register directly in <a href="#">Wallonia</a> , <a href="#">Flanders</a> , and <a href="#">Bruxelles capital</a>  	Register now.  Established scheme for electronics  <a href="#">RECUPEL</a> and <a href="#">details</a> . 0800 40.387, <a href="mailto:info@recupel.be">info@recupel.be</a> · <a href="#">Recupel ICT</a> (IT, telecommunication and office equipment) · <a href="#">MeLaRec</a> (Medical devices and laboratory equipment)	allowed for management costs of historical waste until 2011 (2013 for large appliances)	Only required if not part of compliance scheme (Flanders)
Bulgaria		Plan to transpose legislation by end 2005		
Cyprus	Environmental Service of the Ministry of Agriculture, Natural Resources and Environment, CY-1411 Nicosia  Registration system does not exist yet	A joint system is to be approved by the Environment Committee, which consists of representatives of several Ministries.  Recovery Organisations (Compliance Systems) -none yet	not specified	not specified
Czech Republic	<a href="#">Ministry of Environment</a> (may delegate)  Ing. Markéta GRÜNEROVÁ, 267 12 21 96, <a href="mailto:marketa_grunerova@env.cz">marketa_grunerova@env.cz</a>	No register yet? Deadline for registration is 12 October 2005  <a href="#">RETELA</a> (Cat 3, 4, 6, 8, 9 and possibly 7) by <a href="#">Czech and Moravian Electrical and Electronic Association</a> . Jaroslav Vladík, <a href="mailto:vladik@prospeksa.cz">vladik@prospeksa.cz</a> , 251 564 622	allowed for management costs of historical waste until 2011 (2013 for	Only required if not part of compliance scheme

## Commercial-in-confidence

Country	Registration body	Compliance schemes	Visible fee	Financial guarantee
	REMA are offering Entry Agreement like Recupel. +420224454224, <a href="mailto:info@weee.cz">info@weee.cz</a>	<p>REMA - Cat 3(IT), 4, 6 and possibly 7 (i.e. IT, AV, Electric tools and garden equipment ET&amp;ZT, Other appliances OS). Ing. David Beneš, <a href="mailto:benes@weee.cz">benes@weee.cz</a> , 2244 5 4422, Ing. Ladislav Dušek, <a href="mailto:dusek@weee.cz">dusek@weee.cz</a> , 603 502 002.</p> <p>ELEKTROWIN – Cat 1,2 and possibly 3,4,6. Roman Tvrznik, Email: <a href="mailto:info@elektrowin.cz">info@elektrowin.cz</a></p> <p>ERP via Austria/Germany</p> <p>Asekol - All. <a href="mailto:dispecink@asekol.cz">dispecink@asekol.cz</a></p>	<p>large appliances)</p> <p>Level determined by Register</p> <p>If there is visible fee, it must be declared</p>	Requires blocked bank account
Denmark	<p>Responsibility of <a href="#">Danish EPA</a></p> <p>Must register by 1 January 2006, &amp; at least 14 days before placing on market. Fee of DKR 3000 per producer per product category</p> <p>Must register direct if not member of compliance scheme</p>	<p>MST Newsletter says WEEE rules apply from 1 April 2006 and guide will be published on what producers need to do in Aug 05. MST Contact: Danish EPA contact person: Peter Grau, phone: 3266 0191, mail: <a href="mailto:pgr@mst.dk">pgr@mst.dk</a></p> <p><a href="#">EPA Elretur Denmark</a> -all categories</p>	not specified	<p>Required if not part of compliance scheme</p> <p>Compliance schemes may be exempted</p>
Estonia	<p><a href="#">Estonian Environment Information Centre</a> or ?.</p> <p>Enforcement probably by Ministry of Environment through The Environmental Inspectorate</p> <p>Mr. Eek Peeter, Head of Waste Department, Ministry of Environment, Tel.: + 372 –6262884, Harri Murra, SEI, Tel. +372-5052365</p> <p>Regulation on register yet to be passed (as of Nov 05). Register by 20 Mar 06?</p>	<a href="#">EES-Ringlus</a> , an association of producers, 6 307 300, 50 66 100, <a href="mailto:margus.vetsa@eesringlus.ee">margus.vetsa@eesringlus.ee</a>	not specified	Only required if not part of compliance scheme
Finland	<p>Producer data register maintained by:</p> <p><a href="#">Pirkanmaa Regional Environmental Centre</a></p> <p>Registration by 15 May 2005 Must have Finnish company registration code. Contact: Teemu Virtanen, Tel:+358 3 2420 203. Forms in Finnish or Swedish.</p> <p><a href="#">Registration forms-unofficial in English</a></p>	<p>- <b>ELKER Oy (Umbrella organisation and service provider)</b>. MD Mr. Veikko Hintsanen, +358 50 4088956, <a href="mailto:veikko.hintsanen@elker.fi">veikko.hintsanen@elker.fi</a></p> <p>- SELT, Ms. Tarja Hailikari, +358 9 6963 722, <a href="mailto:tarja.hailikari@sstl.fi">tarja.hailikari@sstl.fi</a></p> <p>- ICTTuottajaosuuskunta (teleinformatic and telecommunication). Mr. Klaus Katara, +358 9 6824 1311, <a href="mailto:klaus.katara@tkl.fi">klaus.katara@tkl.fi</a></p> <p>- <b>SERTY Oy (WEEE Producer Community)</b>. MD, Mr. Timo Valkonen, +358 9 2705 2840, <a href="mailto:timo.valkonen@sertuottajayhteiso.fi">timo.valkonen@sertuottajayhteiso.fi</a></p> <p>- Federation for the technology industry is planning to be set up for B2B compliance?</p>	<p>allowed for management costs of historical waste until 2011 (2013 for large appliances)</p>	Only required if not part of compliance scheme

## Commercial-in-confidence

Country	Registration body	Compliance schemes	Visible fee	Financial guarantee
France	<p>Adème (Environment Agency) .See <a href="mailto:deee@ademe.fr">deee@ademe.fr</a></p> <p>2005-11 The national register is currently under discussion and the act(order) covering this should be published by the 2005 and operational from 1 Sept 06. Only producers (as defined by the directive) can register in France.</p>	<p>Historical B2B WEEE: Final holder responsible (not producer)</p> <p><b>Alliance Tics</b>: an umbrella organization of the telecommunications and IT sector is considering setting up a collective system for its members.</p> <p><b>ERP</b> - all except Cat 5. 13/02/2006 : Supplier tendering by 6/5/2006 : <a href="mailto:consultationfrance@erp-recycling.org">consultationfrance@erp-recycling.org</a></p>	<p>mandatory for some categories of large appliance until 13 February 2011 (2013 for some of these)</p>	<p>must demonstrate capacity to discharge obligations whether ccmplying individually or collectively</p>
Germany	<p>Ministry of Environment responsibility</p> <p>Clearing house and registration is being delegated to <b>Elektro-Altgeräte Register (EAR)</b> Can register - also non German producer can too [but must be in German]</p> <p><a href="mailto:info@stiftung-ear.de">info@stiftung-ear.de</a>, +49 911 76 66 50</p> <p>Deadline for registrations is 24 Nov 2005 (otherwise not allowed to put product on market) with financial reposnsibilby from 24 Mar 06</p> <p>28 Aug <a href="#">Registration instructions</a> and site includes decision scoping help and detailed <a href="#">rule book</a></p> <p><a href="#">Overview of types of equipment covered</a></p> <p><a href="#">Stiftung Elektro-Algerate Register</a></p>	<p>Producer-funded takeback and treatment are now expected to begin on 1 March 2006</p> <p>European Recycling Platform (ERP) Aug 05 - will be set up inline with national legislation - all except Cat 5?</p> <p><b>Elektro-Geraete Recycling GmbH</b> also focuses on WEEE recycling:but perhaps not compliance scheme</p> <p><b>ProReturn</b> - Compliance Philips/Sharp/Loewe. Cat 3, 4 but not TV producers, Klaus Petri, 040/2852-4208, <a href="mailto:klaus.petri@philips.com">klaus.petri@philips.com</a></p> <p><b>Landbell</b> (packaging scheme) also planning <b>WEEE scheme</b>. +49 6131 23 56 52-0, <a href="mailto:info@landbell.com">info@landbell.com</a></p> <p><b>Interseroh</b>, +49 (0) 22 03/91 47-0</p> <p><b>Remondis</b>, +49(0)2306/106-0, <a href="mailto:info@remondis.de">info@remondis.de</a></p> <p><b>EcologyNet Europe</b>, Set up by Panasonic. B2B except Cat 5, <a href="mailto:Info@ecologynet-eu.com">Info@ecologynet-eu.com</a></p>	<p>allowed for management costs of historical waste until 2011 (2013 for large appliances)</p>	<p>must demonstrate capacity to discharge obligations whether ccmplying individually or collectively</p>
Greece	<p><b>Ministry of Environment, Planning and Public Works</b></p> <p>Producers must register by 31 December 2005 - website not useful 📌</p>	<p><b>Appliances Recycling SA</b>. Agreement in <a href="#">English</a>. 210 53 19 765 &amp; 210 53 19 780 &amp; +30 210 531 9766. Appears to apply costs of recycling 1 July 2004. Can apply now?</p>	<p>allowed for management costs of historical waste until 2011 (2013 for large appliances)</p>	<p>Only required if not part of compliance scheme</p>
Hungary	<p><b>National General Directorate of Environment and Water</b> - English version does not work</p> <p>Registration from 1 Jan 05. Open to producers outside but not encouraged</p> <p>📌</p>	<p><b>Elektro-waste</b>: IT, (1) 373-0491</p> <p><b>Ökomat</b> - gaming/vending and Cat 3 and now all WEEE except mobiles and fridges, 06-1-236-0506</p> <p><b>Re-Elektro Kht</b></p>	<p>allowed for management costs of historical waste until 2011 (2013 for large appliances)</p>	<p>Only required if not part of compliance scheme</p>

## Commercial-in-confidence

Country	Registration body	Compliance schemes	Visible fee	Financial guarantee
Ireland	<p>Minister for the Environment, Heritage and Local Government is responsible.</p> <p><a href="#">WEEE Register Society Ltd</a>, The National Registration Body, Suite 501, 8 Dawson Street, Dublin 2. Tel: 00353 (0)1-2409320 / 2409321, <a href="mailto:info@weeeregister.ie">info@weeeregister.ie</a></p> <p>Must apply to register by 20 July 2005 or start date of business, whichever is later. Also renew each 31<sup>st</sup> January</p> <p>Guarantees required and financial responsibility starts 13th Aug. 2005. Can register now.</p> <p>Registration is by emailing for a registration form to <a href="mailto:weeeregister@gmail.com">weeeregister@gmail.com</a></p> <p>Data required monthly. 📅</p>	<p>Nov 05: B2B compliance in the UK decided not to set up compliance scheme in Ireland</p> <p>You must register if you ;</p> <ol style="list-style-type: none"> <li>1. manufacture and sell EEE in the State,</li> <li>2. manufacture EEE and export it out of the State,</li> <li>3. rebrand EEE as your own and sell it in the State,</li> <li>4. import EEE into the State.</li> </ol> <p>Distance sellers i.e. those who sell EEE via the Internet or by telephone/mail order should note that points 1 to 3 also apply to them.</p> <p>Membership of a compliance scheme is accepted as having a guarantee:</p> <p><a href="#">WEEEIreland</a> - +353 (0) 1 2999320, <a href="mailto:info@weeireland.ie">info@weeireland.ie</a> - not for profit</p> <p><a href="#">ERP</a> - 00.32.2.777.0538, email: <a href="mailto:info@erp-recycling.org">info@erp-recycling.org</a> -operational</p>	compulsory	
Italy	<p>To be set up close to Ministry of Environment. Registration with Chamber of Commerce (** companies established in Italy are already registered)</p> <p>Registration from 13 February 2006. Producers will have 90 days to register following issue of sub-decree establishing register"</p> <p>Producers will register with local chamber of commerce</p>	<p>La Federazione Nazionale imprese elettrotecniche ed elettroniche (<a href="#">ANIE</a>) is setting up compliance schemes though none appear targeted at business WEEE</p> <p><a href="#">EcoR'it</a> -business and domestic compliance scheme in development <a href="mailto:ecorit@tecnoimpresa.it">ecorit@tecnoimpresa.it</a></p> <p>ERP will operate in Italy as a WEEE compliance scheme for all except category 5</p> <p><a href="#">Ecodom</a> - primarily household</p>	allowed for management costs of historical waste until 2011 (2013 for large appliances) Producer may show to distributor, in which case latter must show to customer	not decided
Latvia	<p><a href="#">State Environmental, Geological and Meteorological Agency</a> and <a href="#">Latvian Environment Agency</a></p> <p>Not clear if can register through LZE yet. May be delegated to Latvian Electrical Engineering and Electronic Industry Association or Latvian Electronics Producers Association</p> <p>Grace period till 31 December 2008. Registration by end March 2006</p>	<p>Compliance schemes being set up:</p> <ul style="list-style-type: none"> <li>- <a href="#">CECED</a> -Latvia</li> <li>- Latvian Green Elektrons (Latvijas Zājais Elektrons) (<a href="#">LZE</a>), 7320628; <a href="mailto:info@lze.lv">info@lze.lv</a></li> </ul> <p>INFOBALT setting up compliance organisation</p>	not specified	not specified

## Commercial-in-confidence

Country	Registration body	Compliance schemes	Visible fee	Financial guarantee
Lithuania	Responsibility of <a href="#">Ministry of Environment</a> or Environment Agency  Vilma Karosienė, Chief Desk Officer of the Contaminated Areas and Waste Division of the Environmental Quality Department of the MoE, Tel. +370 5 266 35 13, E-mail: <a href="mailto:v.karosiene@am.lt">v.karosiene@am.lt</a>  Registration not yet possible?	Setting up compliance schemes but do not appear active  - <a href="#">CECED Lithuania</a>  - <a href="#">INFOBALT</a> (ICT), +370 52 62 26 23, <a href="mailto:office@infobalt.lt">office@infobalt.lt</a>  - <a href="#">Green Dot Lithuania (Žaliasis taškas)</a> -packaging scheme possibly considering setting up WEEE scheme, (+370) 5-233 11 52, <a href="mailto:office@zaliasistaskas.lt">office@zaliasistaskas.lt</a>	not specified	not specified
Luxembourg	<a href="#">Ministry of the Environment</a>  Ecotrel is responsible for handling registration too, (00352) 26098-731. [Registration by 13 August 2005]  <a href="#">MoE WEEE page</a> , <a href="#">MoE register</a>  Mr. Serge Less at the Ministry of Environment: +352 40 56 56 52-2, <a href="http://www.emwelt.lu">http://www.emwelt.lu</a>  🔥	<a href="#">ECOTREL</a>	allowed for management costs of historical waste until 2011 (2013 for large appliances)  Mandatory if member of Ecotrel .  Fee should be visible	Only required if not part of compliance scheme
Malta	The Malta Environment and Planning Authority (MEPA) responsible for setting up register. Not in place yet. <a href="mailto:weee@mepa.org.mt">weee@mepa.org.mt</a>  Vincent Gauci, Asst. Director, Resources Management Unit, Environment Protection Directorate, email: <a href="mailto:vincent.gauci@mepa.org.mt">vincent.gauci@mepa.org.mt</a>	WEEE not adopted yet. Expected in next few weeks.  Development of compliance schemes is the responsibility of producers.  <a href="#">MEPA</a> is working on further regulations incl. national register.	not specified	Only required if not part of compliance scheme
Netherlands	<a href="#">VROM</a> responsible. Ministry of Housing, Spatial Planning and Environment  <a href="#">Senternovem</a> is responsible for handling registration: <a href="mailto:evoa@senternovem.nl">evoa@senternovem.nl</a>  <a href="#">NVMP</a> is responsible for registering importer/ manufacturer who markets product for the first time. <a href="http://www.bea-indicator.nl">http://www.bea-indicator.nl</a> 🔥	Reporting is twice monthly?  <a href="#">NVMP</a> (consumer electronics mostly), Tel: +31 79 353 1123, <a href="mailto:nvmp@fme.nl">nvmp@fme.nl</a>  ICT Milieu or <a href="#">ICT Office</a> (ICT products, computers, telephones etc.), Tel: +31 348 49 36 36 , <a href="mailto:marian.oppelaar@ictoffice.nl">marian.oppelaar@ictoffice.nl</a>	allowed for management costs of historical waste until 2011 (2013 for large appliances)  Show disposal fee as separate item on invoice.	Only required if not part of compliance scheme

## Commercial-in-confidence

Country	Registration body	Compliance schemes	Visible fee	Financial guarantee
Norway (not EC)	Norwegian Pollution Control Authority ( <a href="#">SFT</a> ), (under Ministry of the Environment).	<p>Producer must join take back scheme under existing regulations - WEEE like regulation publication to be published soon.</p> <p>Compliance schemes:</p> <p>- <a href="#">Elretur</a> all types, +47 23 06 07 40, <a href="mailto:adm@elretur.no">adm@elretur.no</a></p> <p>- <a href="#">Renas</a> industrial and commercial. 22 13 52 00, <a href="mailto:renas@renas.no">renas@renas.no</a></p>		
Poland	<p>2 year extension to deadline. Registration by 30 September 2006</p> <p>Responsibility of the Chief Inspector of Environmental Protection -may be delegated</p> <p>Main Inspectorate for Environmental Protection GIO, Ms. Izabela Szadura, Head of Market Inspection, +48 22 59-28-105, : <a href="mailto:i.szadura@gios.gov.pl">i.szadura@gios.gov.pl</a> . <a href="http://www.gios.gov.pl">http://www.gios.gov.pl</a></p>	<p><a href="#">CECED Poland</a> is working with Polish Chamber of Electronics and Telecommunication (<a href="#">KIGEIT</a>) and Philips (lamps) to form joint or possibly separate organisations - called <a href="#">Elektro-Eko</a>.</p> <p><a href="#">ERP</a> - being set up. 022 5657502, <a href="mailto:piotr_mekarski@hp.com">piotr_mekarski@hp.com</a></p>	Allowed for historical waste. Established by producer or by compliance scheme	<p>Only required if not part of compliance scheme</p> <p>Financial guarantee from 1 January 2006</p>
Portugal	<p><a href="#">ANREE</a> set up under by producer associations and collective compliance system under licence from the <a href="#">Instituto dos Residuos</a> (INR). Register <a href="#">here</a></p> <p>INR has set up <a href="#">web portal</a>. +351 218 424 000, <a href="mailto:isabel.andrade@inresiduos.pt">isabel.andrade@inresiduos.pt</a>, tel: +351 218 424 047</p> <p>All producers must register even if in compliance scheme.</p>	<p>Amb3E being set up by industry. (See <a href="#">official notice</a> of setting up)</p> <p>Collective or takeback systembeing developed but not operational</p> <p>((Portuguese Association of Refrigeration and Air Conditioning Industry), Tel. +351 213 224 260, E-mail: <a href="mailto:apirac@metcabo.pt">apirac@metcabo.pt</a></p> <p><a href="#">ERP</a> - 00.32.2.777.0538, email: <a href="mailto:info@erp-recycling.org">info@erp-recycling.org</a> -operational</p>	allowed for management costs of historical waste until 2011 (2013 for large appliances)	Only required if not part of compliance scheme
Slovakia	<p><a href="#">Ministry of Environment</a>, +421 2 59561111/ 2383/ 2388, <a href="mailto:info@enviro.gov.sk">info@enviro.gov.sk</a></p> <p>Registration must be completed in Slovak.</p> <p>Registration started in January 2005 until the end of August 2005. From 1 September 2005 onwards, companies not registered may be banned from selling their products in Slovakia.</p> <p>2 years grace.</p>	<p><a href="#">CECED Slovakia</a> setting up scheme</p> <p>- IT and Telecom equipment and Consumer equipment (Cat 3 and 4). Ing. Jiří Mikulénka, <a href="mailto:mikulénka@sewa.sk">mikulénka@sewa.sk</a> or <a href="mailto:sewa@sewa.sk">sewa@sewa.sk</a>, +421 (02) 55 64 23 28</p> <p><a href="#">Etalux</a></p>	<p>allowed for management costs of historical waste until 2011 (2013 for large appliances)</p> <p>But mandatory for producer in Envidom</p>	not specified

## Commercial-in-confidence

Country	Registration body	Compliance schemes	Visible fee	Financial guarantee
Slovenia	Ministry of Environment and Spatial Planning [registration by 30 June 2005]	ZEOS collaboration between <a href="#">Gorenje</a> , BSH, Atotehnam, LTH, Merkur, Mercator, Mikropis <a href="#">Interseroh</a> and >>> <a href="#">Slopak</a>	allowed for management costs of historical waste until 2011 (2013 for large appliances)	Mandatory in all cases
Spain	<a href="#">Ministry of the Environment</a> .  One national register (new part of National Register of Industrial Establishments) to be set up but 13 Aug deadline remains in place  Must also register in Autonomous Community where head office of producer is located	ECOTIC - includes sub schemes for consumer, professional, telecom and other <a href="mailto:ecotic@ecotic.es">ecotic@ecotic.es</a> <a href="#">Asimelec</a> have set up a number of schemes:  <a href="#">ECOFIMATICA</a> - office electrical - AFEC, 91 417 08 90, <a href="mailto:asimelec@asimelec.es">asimelec@asimelec.es</a>  Ecoasimelec too?  ERP - 00.32.2.777.0538, email: <a href="mailto:info@erp-recycling.org">info@erp-recycling.org</a> -operational	mandatory for management costs of historical waste until 2011 (2013 for large appliances)	Only required if not part of compliance scheme
Sweden	<a href="#">Swedish EPA</a> , +46 8 698 1000, <a href="mailto:gunnar.fredriksson@naturvardsverket.se">gunnar.fredriksson@naturvardsverket.se</a>  Register through EI-Kretsen	Existing <a href="#">EI-Kretsen</a> scheme., +46 8 545 212 90, Jorgen Schultz, Managing Director, <a href="mailto:jorgen.schultz@el-kretsen.se">jorgen.schultz@el-kretsen.se</a>  <a href="#">Elretur</a> . <a href="mailto:info@el-retur.se">info@el-retur.se</a>	mandatory until 13 Aug 2011 (2013 for large appliances)  May be shown	Only required if not part of compliance scheme
Switzerland (not EU)	Responsibility of <a href="#">Environment Ministry</a> but no register?	- <a href="#">Swico</a> - consumer, office, IT , dental		
UK	UK <a href="#">Environment Agencies</a> (EA plus Scottish and Welsh devolved authorities) - but system not set up yet	No date is set for registration - likely to be late 2006 or early 2007. <a href="#">Valpak</a> (includes IT and office equipment), <a href="mailto:info@valpak.co.uk">info@valpak.co.uk</a> Offer  - a B2B compliance scheme (including registration for the producer in other member states)  <a href="#">REPIC</a> – primarily white goods,  <a href="#">TRANSFORM</a> , - Biffe and EMR. Do not specify-probably domestic, <a href="mailto:info@transform-uk.net">info@transform-uk.net</a>  <a href="#">B2B Compliance</a> , primarily at Categories 8 and 9. 01691 676124, : <a href="mailto:action@b2bcompliance.org.uk">action@b2bcompliance.org.uk</a> working with Valpak on service across B2B and B2C  <a href="#">ERP</a> - will be set up inline with national legislation. All but Cat 5.  Data required will be the numbers and weights of products per category, sold in the calendar year  Exports will not be included. Distance selling to other Member States will not be included	Probably voluntary	not announced