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Environmental Engineering (EE);
Earthing and bonding of 400 VDC data and telecom (ICT) equipment

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Foreword

This European Standard (EN) has been produced by ETSI Technical Committee Environmental Engineering (EE).

The present document has been produced within the framework of the following considerations:

a) Datacommunications and Telecommunications (ICT) equipment is generally installed in data and telecom centres and held in racks, cabinets or other mechanical structures;

b) the existing ITU-T and ITU-R Recommendations and CENELEC standards in such matters do not ensure the required standardization at the equipment level;

c) network operators and equipment providers agreed to standardize on a bonding configuration that facilitates:

- compliance with functional requirements including Electromagnetic Compatibility (EMC) aspects of emission and immunity;
- compatible building and equipment provisions;
- installation of new data and telecom centres as well as expansion or replacement of installations in existing data and telecom centres with equipment coming from different suppliers;
- a structured installation practice;
- simple maintenance rules;
- contracting on a common basis;
- cost effectiveness in development, manufacturing, installation and operation.

National transposition dates	
Date of adoption of this EN:	30 September 2013
Date of latest announcement of this EN (doa):	31 December 2013
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	30 June 2014
Date of withdrawal of any conflicting National Standard (dow):	30 June 2014

Introduction

The present document addresses earthing and bonding of data and telecom (ICT) equipment in data and telecom centres when implementing a direct current interface up to 400 VDC defined in EN 300 132-3-1 [1] in relation to safety, functional performance and EMC. The present standard may also be applicable for ICT equipment in other locations such as: street cabinets, containers, subscriber's buildings, BTSs, etc.

The general principles for electrical installations from a safety perspective are based on the HD 60364-series (IEC 60364-series) of standards, and where appropriate on information published by ITU-T to provide for the proper functioning of those installations.