

University of Oxford IT Services Infrastructure Specification Project

ISP-03-001: Distribution cabling - Recommendations: Overview

1 INTRODUCTION

1.1 Scope

This document specifies the minimum recommended design features of the distribution cabling used to deliver University of Oxford IT Services to service outlets in customers' premises.

1.2 Responsibilities

Figure 1 shows a schematic of the elements used to create the University of Oxford IT Services Entrance Facilities and how they relate to the other cabling-related functional elements within the premises served. Figure 1 uses the definitions and abbreviations of clause 1.3 of ISP-00-001.

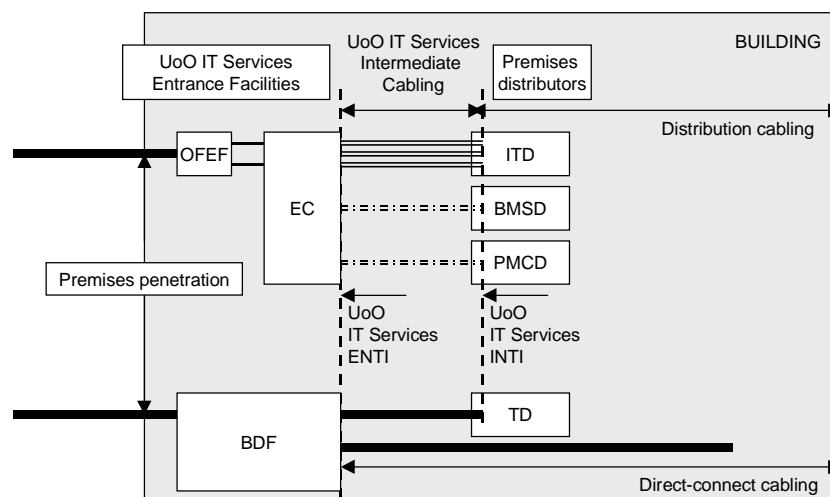


Figure 1 - Schematic of premises infrastructure served by Oxford University IT Services

University of Oxford IT Services provides a guaranteed telecommunications service to the ENT1 and also, where it exists, to the INT1.

The specification, accommodation, installation and operation of the distribution cabling are the responsibility of the customer.

However, failure to meet the minimum recommendations of this document and the other distribution cabling documents of this series may impact the delivery of services over the distribution cabling. In some cases, University of Oxford IT Services may have to withdraw support for services over the distribution cabling until corrective measures have been applied by or on behalf of the customer.

2 DISTRIBUTION CABLING

2.1 Direct-connect cabling

Figure 2 shows a schematic of the recommended structure for direct-connect distribution cabling used to connect the BDF to the service outlets (Line Jack Unit (LJU)) throughout the customer premises. This structure allows the installation of a single Distribution Panel (DP) between the BDF and the LJU.

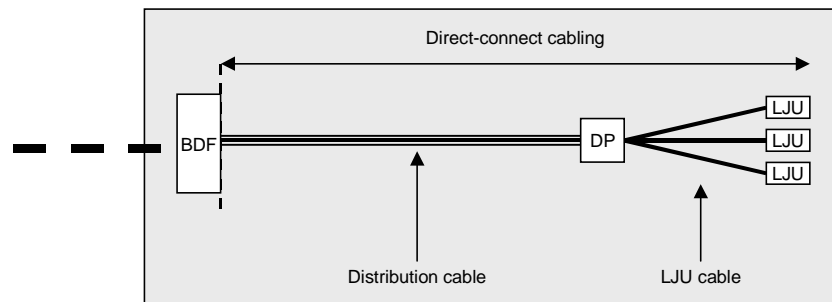


Figure 2 - Schematic of direct-connect distribution cabling

Recommendations for the design, planning, installation and documentation of direct-connect distribution cabling are detailed in document ISP-03-002.

2.2 Generic, “structured”, distribution cabling

2.2.1 General

In general there are two implementations of generic, structured, cabling within University premises.

The first distributes services to outlets (Telecommunications Outlets (TOs)) throughout the customers’ premises which are dedicated to specific information technology applications. This cabling is specified in BS EN 50173-2 and is as shown schematically in Figure 3.

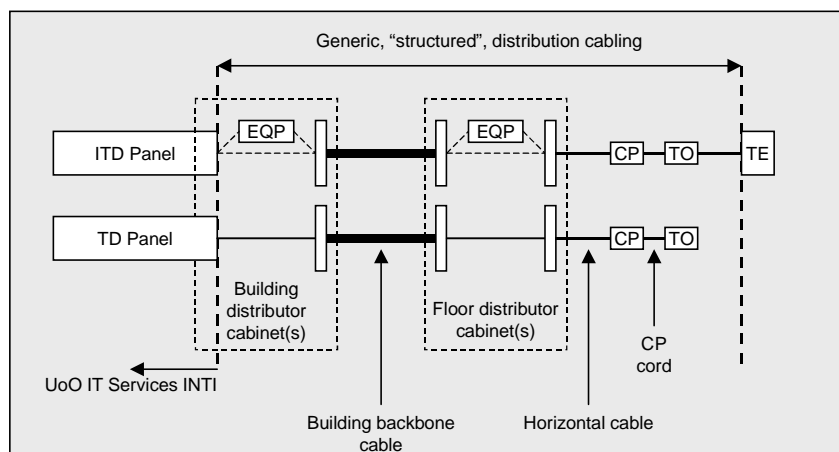


Figure 3 - Schematic of generic “structured” distribution cabling in accordance with BS EN 50173-2

The second is intended for the distribution throughout the customers' premises of non-user and non-location specific services, some of which are IT-related, whereas other support building services such as surveillance and access control, environmental monitoring etc. This cabling is specified in BS EN 50173-6 and is as shown schematically in Figure 4.

The Distributed Building Services (DBS) panels within the building distribution cabinets include the BMSD and PCMD of Figure 1 together with those associated with any non-user specific IT services such as wireless access points (or distributed antenna systems which may be served from the TD).

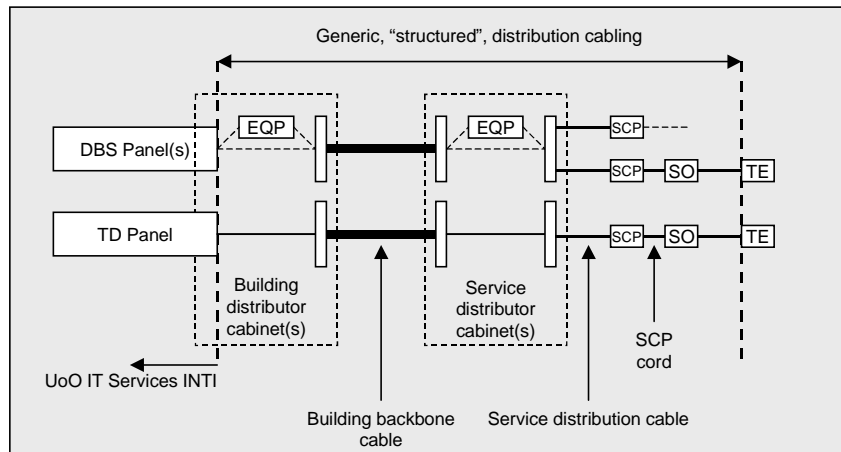


Figure 4 - Schematic of generic "structured" distribution cabling in accordance with BS EN 50173-6

The structure is scalable depending upon the size and configuration of the premises.

NOTE: the backbone structures are specified within BS EN 50173-1 and referenced from BS EN 50173-2 and BS EN 50173-6..

Recommendations for the design, planning, installation and documentation of BS EN 50173-2 cabling are detailed in document ISP-03-003.

Recommendations for the design, planning, installation and documentation of BS EN 50173-6 cabling are detailed in document ISP-03-004.

2.2.2 Premises containing only horizontal cabling

The minimum recommendations for the horizontal cabling in support of OUT services are detailed in ISP-03-003.

2.2.3 Premises containing only service distribution cabling

The minimum recommendations for the service distribution cabling in support of OUT services are detailed in ISP-03-004.

2.2.4 Premises containing backbone cabling to support horizontal and/or distributed building services cabling

The mix of transmission technologies and product performance Categories within the backbone systems is specified in BS EN 50173-1. The minimum recommendations for the backbone cabling in support of OUT services are detailed in ISP-03-003 and ISP-03-004.

3 OTHER DOCUMENTS IN THIS SERIES

- IISS-00-001: Infrastructure Installation Specification Strategy: Overview
- IISS-00-002: Infrastructure Installation Specification Strategy: Distributed building services
- IISS-01-001: Assessment of balanced cabling test results
- IISS-01-002: Installation and acceptance testing of singlemode optical fibre cabling
- ISP-00-001: Infrastructure Specification Project: Overview
- ISP-00-002: Access to University of Oxford IT Services facilities (later)*
- ISP-01-001: University of Oxford IT Services Entrance Facilities - Product and design specification
- ISP-01-002: University of Oxford IT Services Entrance Facilities - Accommodation requirements
- ISP-02-001: University of Oxford IT Services Intermediate cabling (INTI-ENTI) - Product and design specification
- ISP-02-002: University of Oxford IT Services Intermediate cabling (INTI-ENTI) - Accommodation requirements
- ISP-03-002: Direct-connect cabling - Recommendations: Telecommunications infrastructure
- ISP-03-003: Distribution cabling - Recommendations: IT infrastructure
- ISP-03-004: Distribution cabling - Recommendations: Distributed building services infrastructure

NORMATIVE REFERENCES

None

BIBLIOGRAPHY

The following documents are considered useful reference sources for the users of this document.

- | | |
|--------------------|--|
| BS EN 50173-1:2018 | Information technology - Generic cabling systems - General requirements |
| BS EN 50173-2:2018 | Information technology - Generic cabling systems - Office premises |
| BS EN 50173-6:2018 | Information technology - Generic cabling systems - Distributed building services |