# SIN 470

**Issue 2.1**
April 2015

**Suppliers' Information Note**

*For The BT Network*

# External NTE
# for the PSTN Single Analogue Line Interface
## Service & Interface Description



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## 1. Introduction

Supplier's Information Note (SIN) 470 provides technical information on the External NTEs (Network Terminating Equipment) for the PSTN Single Analogue Line Interface as a standard engineering practice for new residential premises under certain circumstances.

It should be noted that the information contained within this SIN might be subject to change. Please check with the http://www.btplc.com/sinet/ site to ensure you have the latest version of this document.

Further information can be obtained by contacting your Openreach Commercial Business Manager.

## 2. Service Outline

### 2.1 General

Openreach is installing the External NTE at residential new build developments to terminate the copper pair.

This SIN provides details relevant to CPs regarding External NTEs.

It should be noted that External NTEs are not a specific product or product variant (ie they cannot be specified at the point of order), rather they are an engineering solution to particular operational and engineering situations. BT reserves the right at its absolute discretion to elect whether or not to install an External NTE.

### 2.2 Service Availability and Tariffs

External NTEs will not be available as a product option at the point of order, but Openreach may chose to utilise them during the course of New Provisions in the following situations:

- residential new build developments of greater than five individual dwellings and;
- where all internal telephony wiring is carried out beforehand ie normally the housing developer or a third party acting on their behalf.

The Openreach Newsites Planning Offices will be responsible for liaising with the relevant developers and contractors regarding the use of External NTEs at any particular sites. It should be noted that, as with Internal NTEs at new housing developments, at the time of installation there will be no End Users present nor, potentially, any Communications Provider (CP) yet serving the premises.

End Users will be presented with a set of printed instructions relating to the External NTE, specifically focussing on how to connect/disconnect their internal wiring. This is intended to be part of the new homeowner's/occupier's information pack supplied by the housing developer/provider.

Communications Providers will be aware that an End User is served by an External NTE from a flag on relevant systems.

## 3. Interface Descriptions

### 3.1 General

Although physically different from the standard Internal NTE, and mounted outside the customer premises, there is very little difference to the technical interface specification as a result of the use of External NTEs. The only change from the interface described in SIN 351[1] is:

- For NTE IDC Connections for Extension Wiring, Insulation Displacement Connection No. 4 (IDC4), as described in SIN 351 clause 2.2, cannot provide the optional Local Earth in installations that use an External NTE.

This feature was used in the past to provide a Local Earth for some types of hardwired phones, analogue switchboards, Private Metering and products/services that needed Local Earth calling or ringing. These products or services are all obsolete and, also, not relevant to Residential End Users. Consequently this change has no material effect on the services or potential services that residential End Users receive or can receive.

### 3.2 NTE Housing

The External NTE is housed in a weatherproof, tamper-proof box which can terminate up to two copper pairs. It is normally affixed to the front of the customer premises at a height no less than 400mm and no more than 1500mm from external ground level. Customer Owned Wiring is connected through a cable-entry at the rear of the box. See Figure 1.

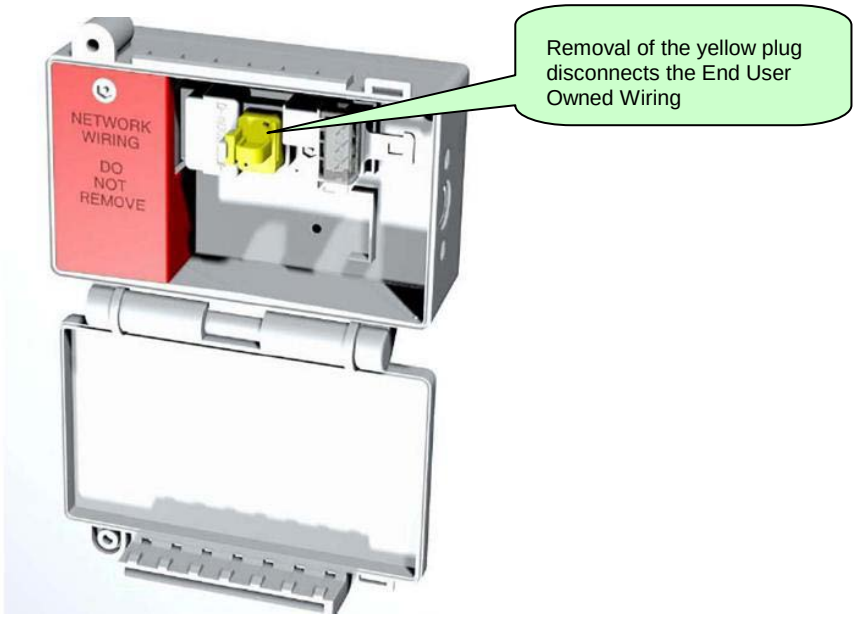


**Figure 1. The External NTE**

### 3.3 Interface Presentation

Under normal conditions the External NTE is wall mounted with the Openreach logo positioned in the bottom right hand corner.

The Customer Owned Wiring network cable is inserted through an entry point at the rear of the NTE before fixing to the wall. It is mounted using the appropriate length round head wood screws and template supplied in the pack.

The incoming network line is not teed prior to its termination on the NTE "A" and "B" terminals. The Network Cable sheath will be anchored with the Straps Cable fixing provided; the sheath will extend 6 to 12 mm past the strap. 75mm of wire length will be left beyond the sheath prior to termination. The wires will not be stripped of their insulation. They will be pushed into IDC labelled "A" and "B" through to the visible back end stop then the clip will be pushed down fully home making the connection.

All cables terminating in the NTE will be secured to the unit using the Straps Cable Fixing provided. The red network tamper-proof cover will be fitted using 3mm hex security screwdriver.

If extension wiring is not provided, the spare Straps Cable Fixing IC will be left within the unit threaded through the cable fixing tag of the extension wiring section. It will not be looped at the end of the strap back through its own buckle.

After completion of the installation the Customer Instructions will be either handed to the End User or enclosed within the box.

## 4. Benefits

The main benefit of the introduction of the External NTE relates to the operational circumstances of its installation – in that it mostly occurs at a time when the premises are, as yet, unoccupied. The use of External NTEs therefore reduces the number of aborted visits to premises resulting from no access. There are additional, second order, benefits that will have a positive service impact for all CPs:

- not requiring access to prove certain types of fault or carry out service restoration;
- standard inclusion of a filter preventing electrical interference in DSL installations;
- clearer demarcation between Openreach and End User wiring;
- reduction of faults where Internal NTEs are affected by End Users, building contractors or internal wiring supplier activities in new residential developments..

## 5. Ceasing usage

From November 2011 the External NTE will no longer be provided at NewSites. Housing developers will instead install an internal NTE5. All existing External NTEs will remain in place until faulty or removed if an End User changes to an incompatible service.

## 6. References

**Suppliers' Information Note:**

| | | |
|---|---|---|
| [1] | SIN 351 | BT Public Switched Telephone Network (PSTN): Technical Characteristics of the Single Analogue Line Interface |

For information on where to obtain these referenced documents, please see the document sources list at http://www.btplc.com/sinet/

## 7. Abbreviations

| | |
|---|---|
| CP | Communications Provider |
| DSL | Digital Subscriber Line |
| IC | Integrated Circuit |
| IDC | Insulation Displacement Connection |
| NTE | Network Terminal Equipment. |
| NTP | Network Terminating Point |
| PSTN | Public Switched Telephone Network |
| SIN | Suppliers' Information Note (BT Publication) |
| SPIN | Service Provider Information Note (BT Publication) |
| STIN | Suppliers' Trial Information Note (BT Publication) |

## 8. History

| Issue | Date | Changes |
|---|---|---|
| STIN 1.0 | 13 November 2007 | First published. |
| 1.0 | 4 December 2008 | References to trial removed from STIN and republished as SIN. Also minor editorials, but no material changes to technical specifications. |
| 2.0 | April 2012 | Added new Section 5 |
| 2.1 | April 2015 | Change SINet site references from http://www.sinet.bt.com to http://www.btplc.com/sinet/ |

**-END-**