JSP 602 Instruction	1026	**Applicability**	Network/Communications, Security
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JSP 602: 1026 – Telephones

Outline

Description: This policy leaflet covers the services and standards necessary to connect a telephone device, open (unsecure) and secure access devices. It also identifies the principle supplier of Telephone services within MOD.

Reasons for Implementation: This policy covers all forms of telephone access device both open (unsecured) and secure in all environments from benign (strategic) to harsh (tactical). In general policies are only applied at system boundaries and the voice access device connection would normally be considered to be internal to the system. However, this policy is included for two reasons. The first is that Secure Telephone Equipment (STE) may be connected directly to commercial networks. The second is that the use of a standard device connection should enable economies of scale to be achieved when procuring telephone handsets.

Issues: There are two principal ways of achieving secure voice communications, one is to use standard access devices (non-secure telephones) over a secure network, hence the security is provided by the bearer network. The other is to use secure access devices (secure telephones such as Brent) over an open network. In this case the security is provided by the access device.

Guidance: This policy is consistent with the NC3TA for circuit-switched voice policy.

This policy is outside the scope of the e-GIF.

Policy

Strategic

1026.01: Circuit switched networks (Secure and Insecure)

1026.01.01 All systems and/or projects providing access device connections for secure or insecure telephone equipment shall do so for equipment designed to meet one or more of the following standards:

1026.01.01.01 ISDN Basic Rate Interface - see below for details of standards

1026.01.01.02 Analogue 2-wire - see below for details of standards

International standards allowing all forms of basic rate ISDN and two-wire voice equipment (secure and insecure) to be connected.

Comment: Circuit switched networks (Secure and Insecure)See JSP602: 1029 'Voice Interchange' for other standards relevant to the operation of Packet Switched Services over Circuit Switched Networks.

1026.02: ISDN Basic Rate Interface

1026.02.01 For ISDN Basic Rate Interface the mandatory standards are:

1026.02.01.01 TBR3, Integrated Services Digital Network (ISDN); Attachment requirements for terminal equipment to connect to an ISDN using ISDN basic access, Edition 1 1995-11 + Amendment 1 1998-02, ETSI

1026.02.01.02 TBR8, Integrated Services Digital Network (ISDN); Telephony 3,1 kHz teleservice; Attachment requirements for handset terminals, Edition 2 1998-10, ETSI (also known as NET4)

1026.02.01.03 Recommendation I.420 Basic User-Network Interface, 11/88, ITU-T (formerly CCITT)

Comment: STEs such as Brent use ISDN Basic Rate interfaces to connect in to any type of (Insecure) voice network. It must be noted that the BRENT equipment makes use of the unrestricted digital bearer service, which must be provided on the ISDN basic rate connection for secure operation.

1026.03: Analogue 2-wire

1026.03.01 For Analogue 2-wire Interface the mandatory standards are:

1026.03.01.01 PD 6568, Draft standard to match and work with ETS 300 001/NET4 Specification for Simple telephones for connection to public switched telephone networks run by certain public telecommunications operators, 1992, BSI

1026.03.01.02 ETS 300 001, Attachments to the Public Switched Telephone Network (PSTN); General technical requirements for equipment connected to an analogue subscriber interface in the PSTN, Edition 4 1997-01, ETSI

Strategic (continued)

1026.03.01.03 TBR21, Terminal Equipment (TE); Attachment requirements for pan-European approval for connection to the analogue Public Switched Telephone Networks (PSTNs) of TE (excluding TE supporting the voice telephony service) in which network addressing, if provided, is by means of Dual Tone Multi Frequency (DTMF) signaling, Edition 1 1998-01, ETSI

1026.03.01.04 TBR38, Public Switched Telephone Network (PSTN); Attachment requirements for a terminal equipment incorporating an analogue handset function capable of supporting the justified case service when connected to the analogue interface of the PSTN in Europe, Edition 1 1998-05, ETSI

1026.03.01.05 BS 6317, Specification for Simple telephones for connection to public switched telephone networks run by certain public telecommunications operators, 1992, BSI

1026.03.01.06 BS 6305, Specification for General requirements for apparatus for connection to public switched telephone networks run by certain public telecommunications operators, 1992, BSI

Comment: Standard commercial telephones use 2-wire loop for connection to exchange. Secure voice services are also provided using standard Telephone devices connecting to secure exchanges (e.g. Patron, Secure Speech System (SSS) which is replacing Patron).

1026.04: Packet switched networks

1026.04.01 All systems and/or projects providing IP-based telephone services shall implement the following standard(s):

1026.04.01.01 ISO/IEC 8802-3:2003 (IEEE Std. 802.3, 2003 Edition), Information technology, Telecommunications and information exchange between systems - Local and metropolitan area networks - Specific requirements - Part 3: Carrier sense multiple access with collision detection (CSMA/CD) access method and physical layer specifications, Clauses 21-30 for 100BaseT and Clause 14 for 10BaseT.

De facto standard used for connecting devices to a LAN.

Deployed

As for Strategic domain.

Tactical

Not applicable.

Comment: For tactical systems, access devices are part of the tactical communications system (e.g. Bowman).

Remote
Not applicable. *Comment:* Remote access devices such as mobile and home telephones are beyond the scope of MOD policy.

Responsibility for Implementing the Policy

Implementation of this policy shall be the responsibility of all IPTs (and their suppliers) that provide access points for the connection of secure or open (unsecure) telephone devices.

Procedure

DCSA DFN IPT is the mandatory provider of voice services within the Strategic domain. All projects requiring telephones must obtain guidance from the DFN IPT.

Relevant Links

JSP602 1029 - Voice Interchange

A glossary of terms and abbreviations used within this document is available here.

Instructions on how to read a JSP602 leaflet are available here.

Compliance

Stage	Compliance Requirements
Initial Gate/DP1	MOD Projects shall submit a formal declaration that they have read and understood the policy and sought guidance from the SME(s).
Main Gate/DP2	MOD Projects shall reference in their SRD (and MODAF technical views) the specific policy elements contained within this leaflet that are applicable to the system, equipment or application they are procuring or updating.
Release Authority/DP5	MOD Projects (supported by their equipment suppliers) shall provide evidence of their compliance with the elements of this policy defined within the SRD (and MODAF technical views). Evidence of conformance with standards shall be presented; sources of evidence may include: conformance/compliance certificates provided by equipment suppliers (e.g. under type approval or other assessment regimes), demonstrations, inspection, analysis, tests carried out by suppliers (e.g. Factory Acceptance Tests) and tests carried out at Defence Test and Reference Facilities.