

JSP 602 Instruction	1030	Applicability	Applications, Integration, Network/Communications
Configuration Identity	Version: 01.02 Amended: 2009-03-02 Reviewed: 2006-06-28	Epoch Applicability	2005 - 2009

JSP 602: 1030 - Wide Area Bandwidth

Outline

Description: This policy leaflet covers the requirements that all procurers of information systems, information services and applications must meet in order to ensure that they have properly considered the bandwidth demands they will place on MOD's Wide Area Networks.

Reasons for Implementation: Wide Area Bandwidth is provided to interconnect MOD sites/estates (UK and overseas), deployed headquarters (both on land and afloat) and tactical platforms. Wide Area Bandwidth is provided by a number of systems and service providers (e.g. DFN, DFTS, Cormorant, Falcon, Skynet 5 and Bowman) and many systems, services and applications will require bandwidth to be provided by more than one of them. Hence it is imperative that bandwidth requirements are properly considered and provided to the appropriate authorities for provisioning.

Issues: Wide Area Bandwidth requirements can frequently be affected by the architecture of a system, service or application. The location of servers within a local geographic areas can act to considerably reduce bandwidth requirements (and cost of provision) though may add to the equipment complexity and costs. Similarly the way a system is used, in terms of both business processes and operating procedures, can also influence bandwidth requirements.

Guidance: This leaflet is outside the scope of both the e-GIF and the NC3TA.

Policy

Strategic

1030.01: Site/Estate and Backbone Network Components

1030.01.01 All procurers of systems, services and applications that operate within fixed sites/estates (both UK and overseas) shall provide bandwidth requirements relating to:

1030.01.01.01 The wide area network connection(s) between a MOD site/estate and/or service centre and the RLI/SLI under minimum, normal and peak usage conditions.

1030.01.01.02 The RLI/SLI backbone networks under minimum, normal and peak usage conditions.

Bandwidth provisioning (minimum, normal and peak) must be declared for both the site connections and the backbone networks so that proper provision can be made and the impact assessed on both other site users (including other site systems, services and applications) and the wider MOD community.

Comment: The bandwidth required for each site/estate or service centre will be largely driven by the number of users in that location, the business processes being carried out, the pattern of usage and the user's work rate (which will change as their experience of the system changes). Rather than specify a bandwidth requirement for each location, it may be more appropriate to provide a set of bandwidth requirements for locations with varying numbers of users (e.g. 50, 100, 300, 500 etc.) and with different functions (e.g. general users, call centre, data centre etc.). The declaration of bandwidth requirements on backbone networks is necessary to ensure that appropriate provision is made for the cumulative effects of all connections.

1030.02: Usage Patterns

1030.02.01 All procurers of systems, services and applications that operate within fixed sites/estates (both UK and overseas) shall define how bandwidth requirements will vary depending on their usage patterns as follows:

1030.02.01.01 Time dependent variations (e.g. hourly, daily, weekly, monthly, annual).

1030.02.01.02 Process dependent variations (e.g. operational deployment, user training).

1030.02.01.03 Planned expansion

Bandwidth provisioning must take account of variations in the patterns of use.

Comment: Usage patterns are typically related to the business needs and process that must be carried out to meet those needs. For example a process related to pay will typically 'peak' once a month and a process related to the movements of personnel would peak when forces were being deployed or returning from operations. Plans for system expansion, such as incorporating new functionality and/or increased numbers of users, must also be declared for longer-term planning of bandwidth requirements.

1030.03: Financial Provision

1030.03.01 All procurers of systems, services and applications that operate within fixed sites/estates (both UK and overseas) shall ensure that adequate financial provision has been made for the bandwidth they require.

Projects are responsible for 'buying' the bandwidth they require.

Strategic (continued)

Comment: Wide area bandwidth is not provided as zero cost item, hence projects must ensure that they have taken proper account of the bandwidth costs they will incur.

Deployed

1030.04: Deployed HQ/Site and Backbone Network Components

1030.04.01 All procurers of systems, services and applications that operate within Deployed HQs/sites (land-based and afloat) shall provide bandwidth requirements relating to:

1030.04.01.01 The wide area network connection(s) between a Deployed HQ/site and the backbone/trunk under minimum, normal and peak usage conditions.

1030.04.01.02 The backbone/trunk networks under minimum, normal and peak usage conditions.

Bandwidth provisioning (minimum, normal and peak) must be declared for both the site connections and the backbone networks so that proper provision can be made and the impact assessed on both other site users (including other site systems, services and applications) and the wider MOD community.

Comment: The bandwidth required for each Deployed HQ will be largely driven by the number of users in an HQ, the business processes being carried out, the pattern of usage and the user's work rate (which will change as their experience of the system changes). Rather than specify a bandwidth requirement for each HQ, it may be more appropriate to provide a set of bandwidth requirements for locations with varying numbers of users (e.g. 50, 100, 200 etc.) and with different operational functions. The bandwidth requirements on the backbone/trunk networks is necessary to ensure that appropriate provision is made for the cumulative effects of each connection.

1030.05: Usage Patterns

As for Strategic domain.

1030.06: Financial Provision

As for Strategic domain.

Tactical

1030.07: Tactical sites and Network Components

1030.07.01 All procurers of systems, services and applications that operate within Tactical sites (land based, airborne and afloat) shall provide bandwidth requirements relating to:

1030.07.01.01 The wide area network connection(s) between a Tactical site and the trunk under minimum, normal and peak usage conditions.

1030.07.01.02 The trunk networks under minimum, normal and peak usage conditions.

Bandwidth provisioning (minimum, normal and peak) must be declared for both the tactical site connections and the trunk networks so that proper provision can be made and the impact assessed on both other site users (including other site systems, services and applications) and the wider MOD community.

Comment: See comment for 'Deployed' domain.

Tactical (continued)
<p><u>1030.08: Usage Patterns</u> As for Strategic domain.</p> <p><u>1030.09: Financial Provision</u> As for Strategic domain.</p>
Remote
<p>As for Strategic domain.</p> <p><i>Comment:</i> However the number of users sharing a remote connection are likely to be small and the available bandwidth highly limited</p>

Responsibility for Implementing the Policy

Implementation of this policy shall be the responsibility of all IPTs (and their suppliers) that require the provision of bandwidth on MODs Wide Area Networks.

Procedure

DCSA DFN IPT is the principal MOD focus for the provision of Wide Area Network bandwidth in the strategic, deployed and remote domains. All projects requiring WAN bandwidth provision in these domains must contact the appropriate TLM as follows:

- Restricted LAN Interconnect, Tel: 94382 3110 (01225 813110)
- Circuit Switched Service, Tel: 94382 3052 (01225 813052)
- Secure Switched Service, Tel: 94382 3239 (01225 813239)
- Secure Switched Service, Tel: 94382 3239 (01225 813239)

In the Tactical Domain BATCIS IPT is the principal MOD focus for Bowman and TFCS IPT is the principal focus for Falcon. There are no formal procedures for allocating Wide Area bandwidth prior to deploying systems, services or applications in the tactical domain. However, for BISAs the JSIB (see JSP602: 1037 - GII Engagement) will liaise with the project/supplier and may suggest methods of minimising bandwidth requirements. The JSIB is required to characterise the bandwidth requirements of applications in order to support operational bandwidth planning. The JSIB can be contacted via BAT-SM2 within the BATCIS IPT (bat-sm2@x400.r.mil.uk) who is also resident at the JSIB offices at general Dynamics Oakdale (phil.harvey@generaldynamics.uk.com , tel. no. 01495 23 6969).

In the event that bandwidth requirements cannot be met (permanently or sporadically) , projects, in consultation with the WAN service providers, must identify options for reducing bandwidth requirements (e.g. use of local servers, changes to operating procedures, reducing number of active sessions).

Relevant Links

JSP602: 1037 - GII Engagement

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). They shall also provide a high-level assessment from which WAN providers they anticipate requiring bandwidth.
Main Gate/DP2	MOD Projects shall provide detailed a assessment of their wide area bandwidth requirements in accordance with the requirements of this policy.
Release Authority/DP5	MOD Projects (supported by their equipment suppliers) shall provide evidence of bandwidth utilisation tests to demonstrate their compliance with their stated bandwidth requirements. Evidence shall be presented of minimum, normal and peak loading. Evidence of bandwidth requirements shall be presented from Factory Acceptance Tests and from tests carried out using Defence Test and Reference Facilities.