



HITS – HIGH INTEGRITY TELECOMMUNICATIONS SYSTEM

FREQUENTLY ASKED QUESTIONS

Version 10 Updated April 2010 – readers should ensure they have the most up to date version of the FAQs. This version is aimed at HITS site installation and project managers.

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GENERAL

1. What is HITS?

- HITS is a highly resilient satellite-based communications network that is independent of the main UK telephone network. It will however be able to make calls across the UK telephone network if required, and can also dial into other networks such as mobile phone and commercial satellite communications.

2. When will it be used?

- HITS will be an “always available” system that will be used in any emergency event where normal communications are severely disrupted. In a worst case scenario, the PSTN (UK telephone network) is not working and mobile phone networks are either unavailable or congested. HITS will work in either or both of these circumstances, and will allow national, regional and local levels of response to communicate during the response and recovery to a major incident.

3. Why do we need it?

- HITS is designed to fill a capability gap in UK telecommunications resilience, and replaces in part the former ECN (Emergency Communications Network). HITS is designed to continue functioning even when all other means of communications are not available.
- HITS also provides a means for Category 1 responders to fulfil some of their communications obligations under the Civil Contingencies Act.
- HITS will also provide a secure and reliable means of accessing the National Resilience Extranet or NRE, which will allow you to securely exchange files even if there are network or internet access problems in your local area.

4. What classification is HITS?

- User can make RESTRICTED calls to other HITS phones, but calls outside the HITS network are UNCLASSIFIED. HITS can carry RESTRICTED material via the National Resilience Extranet as well, but files or data exchanged via other internet sites are UNCLASSIFIED.



5. How much will it cost?

- The Cabinet Office will cover the HITS service costs for the core network of HITS sites (which includes Police Force Areas in England and Wales, the Devolved Administrations and Cabinet Office crisis management facilities).
- As HITS will allow calls 'break out' from the HITS network onto the PSTN or mobile networks, a billing mechanism is being established that will allow the sites to pay for these calls. However, there should be no call costs for HITS users for any calls made during an emergency response scenario.
- There may also be some costs involved for sites when preparing their site for installation. The site survey report will detail all necessary pre-installation works that a site needs to carry out, and sites will be responsible for funding these works. However, the Cabinet Office is prepared to reimburse sites for any HITS related works up to a £5k cap, subject to a site following the Assurance Board Process correctly.

6. What if we do not want HITS installed at our site / Why has this site been selected?

- Local Resilience Forum Chairs and Regional Resilience Directors were asked to provide the Cabinet Office with information about suitable multi-agency Strategic Coordination Centres that could be used to host HITS. Each site has been selected by assessing the potential sites against HITS resilience planning assumptions. If you have concerns that your site is not the most suitable location, please contact the Cabinet Office and we will discuss the site selection process.
- It is also important the network be in place across all of the sites in the Core Network. This is so that there are no gaps in the network coverage, and so that all Police Forces can contact each other to coordinate an emergency response.

7. Will HITS be subject to business rates or rental fees?

- HITS will provide a communications service directly to a site. Unlike other systems such as Airwave, there is no broadcasting from your site to provide coverage to the local area and therefore provide a service to other users than those at your site. As no commercial advantage is directly gained by the supplier by installing at your site, rental fees and business rates are not applicable.
- HITS is also provided centrally by the Cabinet Office, so the network is not being established for commercial reasons.



8. Who is building the system and running the service?
- The HITS service will be provided by Paradigm Secure Communications, a division of EADS Astrium. Paradigm was awarded the PFI contract for the provision of secure space-based communications to the UK Ministry of Defence in 2001 – HITS will be procured under this contract.
 - All HITS equipment will be owned and insured by Paradigm and provided as part of a managed service. Paradigm holds Public and Products Liability Insurance for HITS to the sum of £10 million.
9. What are the service and maintenance requirements?
- HITS is provided as a fully managed service so there are very few service and maintenance requirements for sites. The cabling from the user equipment to the rack is not provided so needs to be supplied and maintained by the site.
 - There will be site visits every 6 months from Paradigm (or subcontractor) engineers to carry out routine maintenance.
 - HITS equipment will also require power from your site. The Cabinet Office will not reimburse sites for this power as it will not be significant compared to the overall average power consumption at sites.
10. What if a site has a problem with the HITS equipment?
- The HITS service is supported by a 9-hour service level agreement. This means that all faults should be repaired within 9 hours of the fault being reported. End user training covers details of the process to report a fault.
 - Not all faults require a 9-hour response however, so it is at the discretion of the site whether the 9-hour response is needed. For example, if a phone breaks at 17.00 on Friday a site would not want an engineer to replace the phone by 02.00 on Saturday. A site can request a next working day repair in these cases.
11. Will there be training available for HITS?
- As part of the installation process, some familiarisation with the system will be provided when the site installation is completed. In depth training is not required for most users as the system is very intuitive and user guidance will be supplied with the equipment at installation.



- Formal training will be required for responders based at 'Boxed Kit' sites, as they will be required to set up the equipment themselves and operate it for the duration of the event. For these sites, "refresher" training will be available on an annual basis to cater for new staff as well as those who are already in their role.

12. How resilient is the system?

- There are many aspects of HITS that provide resilience and assure connectivity when needed. Firstly, the system operates both via a terrestrial connection and a satellite link. If the terrestrial connection is unavailable then the satellite link will be available to maintain the service.
- The system has guaranteed bandwidth to the satellite which means that there will always be some capacity on the satellite element of the network reserved for HITS.

TIMESCALES & INSTALLATION

13. What do I need to do?

- A site survey will be arranged for an appropriate time before your scheduled installation (approximately six months before). The results of the survey will confirm the preparatory works needed before installation can begin.
- You may also need to apply for planning permission. This can take some time so you should apply as soon as possible following the HITS site survey. You can also contact your local planning authority in advance to establish what type of planning permission you might need.

14. What part of the installation does the site provide?

- Sites need to provide the cabling from the equipment rack to the end user equipment themselves, because in many cases this will use existing infrastructure or flood-wiring.
- There also other varied works services that sites will need to undertake to prepare for installation, such as providing power sockets for the equipment. All works should be carried out to 17th edition standards.
- Sites also need to mount and fit the ring-beam, if your site will be having a radome (this is the preferred option as it is the most resilient). Paradigm will however fit the antenna and the radome.



15. Is there a radiation hazard?

- The antenna will emit small amounts radiation in the x-band frequency range. Standard radhaz signage and zones will be identified in the site survey, if required at all. It is the site's responsibility to ensure that signage is erected and that procedures are in place locally to power down (and later to re-establish power to) the satellite antenna in exceptional circumstances. The levels of radiation are low and require only minor protection or precautions.

16. Can we opt-out of the system if we move sites?

- Each Police Force Area must have at least one HITS site. If you have to move sites after the installation, then HITS equipment must be moved to the new site or to another location with the necessary resilience requirements in your Police Force Area.

17. Will I be able to choose when my site is installed?

- There will be a certain degree of flexibility in the rollout schedule, and the CCS will confirm with each site whether their rollout phase is suitable. All installations for the Core Network should be completed by 2012 – the majority of Police Force sites though are in Phase 3 which will be completed by mid-2011.

18. What will the site surveys cover?

- The site surveys will assess the site's readiness to receive the HITS equipment, and will help inform you as to what preparatory work will be required before installation.
- The surveys will include details on site location, key contacts (e.g. the Site Installation Design Authority or SIDA), cabling, power, installation metrics, building properties and characteristics (including any hazardous materials), and equipment room details (such as available space, cooling and power etc).
- Detailed reports will be produced following each survey, including a HITS installation design that will confirm the technical details of the installation for that site.

19. Who will need access to the site for HITS?

- Paradigm and their subcontractors will need access to your site to carry out the installation. There are also longer term site access requirements for maintenance and servicing. The Cabinet Office is working with Paradigm and Warwickshire Police to vet all HITS engineers centrally, but if this is not sufficient for your site then please inform Paradigm as soon as possible.



20. What are the installation requirements?

- The main requirements for HITS installation are that the building has appropriate security (suitable for a system accredited to RESTRICTED) and resilience (i.e. in terms of location, power supply etc). In addition, the site must be one that is used for emergency response – there is no point installing HITS in a site if the site will not be used for emergency response!

21. How long will installation take?

- Installation will take anything from 2 days up to a week, depending on the site. Most installations require a series of brief visits to complete in full.

22. How will I know what I need to do before installation?

- There will be site surveys carried out on your site prior to installation. These should reveal any necessary building works that you may have to carry out before installation.
- You should contact your local planning authority well in advance of the scheduled installation window to determine what (if any) planning permission is required.
- Over the 10 year lifetime of the service several sites may need to move due to unanticipated factors. Relocating the HITS equipment will incur additional expense and leave an area without HITS for a period of time, so we are keen to avoid relocation where possible.

23. What if I need planning permission?

- Your site will be surveyed about 6 months prior to installation. The site survey will not necessarily reveal however if planning permission will be required for your site. It will be your responsibility therefore to contact your local planning authority to determine what, if any, planning permission will be required.
- Advice and information to assist with applying for Planning Permission will be provided to each site prior to their site survey as part of their pre-survey documentation.

24. What is a radome?

- A radome is a dome-like cover for a satellite antenna that will protect it from wind and precipitation whilst allowing the communications signals through with little degradation. It is a contraction for Radar Antenna Dome.



25. What is the weight of the antenna and/or radome?

- The total weight of the antenna and/or radome will vary according to the type of installation. A non-penetrating mount is heavier than a penetrating mount because it must be weighted down with ballast. If a site is high up and/or subject to high winds then more ballast will be required. Where a kingpost or wall-mount is used then the assembly will ensure that the weight is evenly distributed.
- The preferred installation option is for a radome with a ringbeam, which together with the antenna will weigh approximately 500kgs. Non-penetrating mount installations will weigh around 400kgs with ballast, but will not support a radome. Wall-mounted or king-post mounts will not require any ballast and so are lighter.

26. What can I do if I cannot put an antenna on my site? What is “Boxed Kit”?

- If an antenna can be mounted on your building, then the first option is to look for a suitable building nearby. A side wall might also be a possibility if the roof is not suitable. The antenna can be up to a kilometre from the site itself, but it is preferable to have the antenna on the site.
- If an antenna cannot be installed at or near your site, then you may be supplied with fixed baseband equipment supported by a “boxed kit” satellite antenna. This will reside permanently at your site, and will complement the HITS terrestrial connection. If during a crisis the terrestrial connection becomes unavailable, then the boxed antenna can be used to connect to the HITS network. This is considered a last resort however as the boxed satellite antenna will not be permanently set up ready to use.

27. What documentation will be required for HITS to be commissioned at my site?

- The HITS equipment will be supplied with technical operating manuals, and all sites and users will also have a soft copy of the HITS User Standard Operating Procedures. All users should sign a HITS End User Agreement before using the system, and your site should maintain a list or rota of users.
- In addition, each site must sign a HITS Service to Site Agreement and a HITS Site Security Agreement. These short documents are required for accreditation reasons, and will outline the responsibilities that sites will have when their personnel start using HITS.

28. What are the security requirements for the equipment room?

- HITS is a secure communications system accredited to RESTRICTED. Therefore,



some basic security measures are required for every site before HITS can be installed and operational.

- Access to the site as a whole should be controlled, and in addition to this the equipment room where the HITS rack will be will need to have controlled access as well. This means that it needs to be locked, and the keys (or access codes for electronic locks) should be kept by a limited number of personnel who have a genuine need to access the equipment room on a routine basis. Further to this, the HITS equipment rack should be locked and the keys managed by the site HITS Information Security Officer.

29. What are the HITS Transportables Terminals and how do they work?

- The Transportables Terminals (or just Transportables) are a deployable version of the HITS service. There are three sets of Transportables, and each set contains a portable satellite antenna along with HITS phones, laptops and a printer. They will usually be deployed to HITS Transportable Deployment Sites to provide additional HITS connectivity for exercises or emergency response operations.
- For more information, please refer to the HITS User Standard Operating Procedures (USOPS) or contact the Cabinet Office (HITS@cabinet-office.x.gsi.gov.uk).
- The Transportables will be equipped with their own generators, which will be sufficient to power all HITS equipment but nothing else.

30. What equipment will the system be supplied with?

- HITS will usually be supplied with three digital phones, three laptops, and one laser printer. These equipment numbers are guidelines; it may be that some of the larger sites get more equipment and the smaller ones less. The site will be asked to propose its requirements as part of the site survey process.
- Each site will be able to accommodate up to a maximum of 10 phones and laptops, although for capacity reasons most sites will on average have three of each. There will also be at least one networked printer per site.

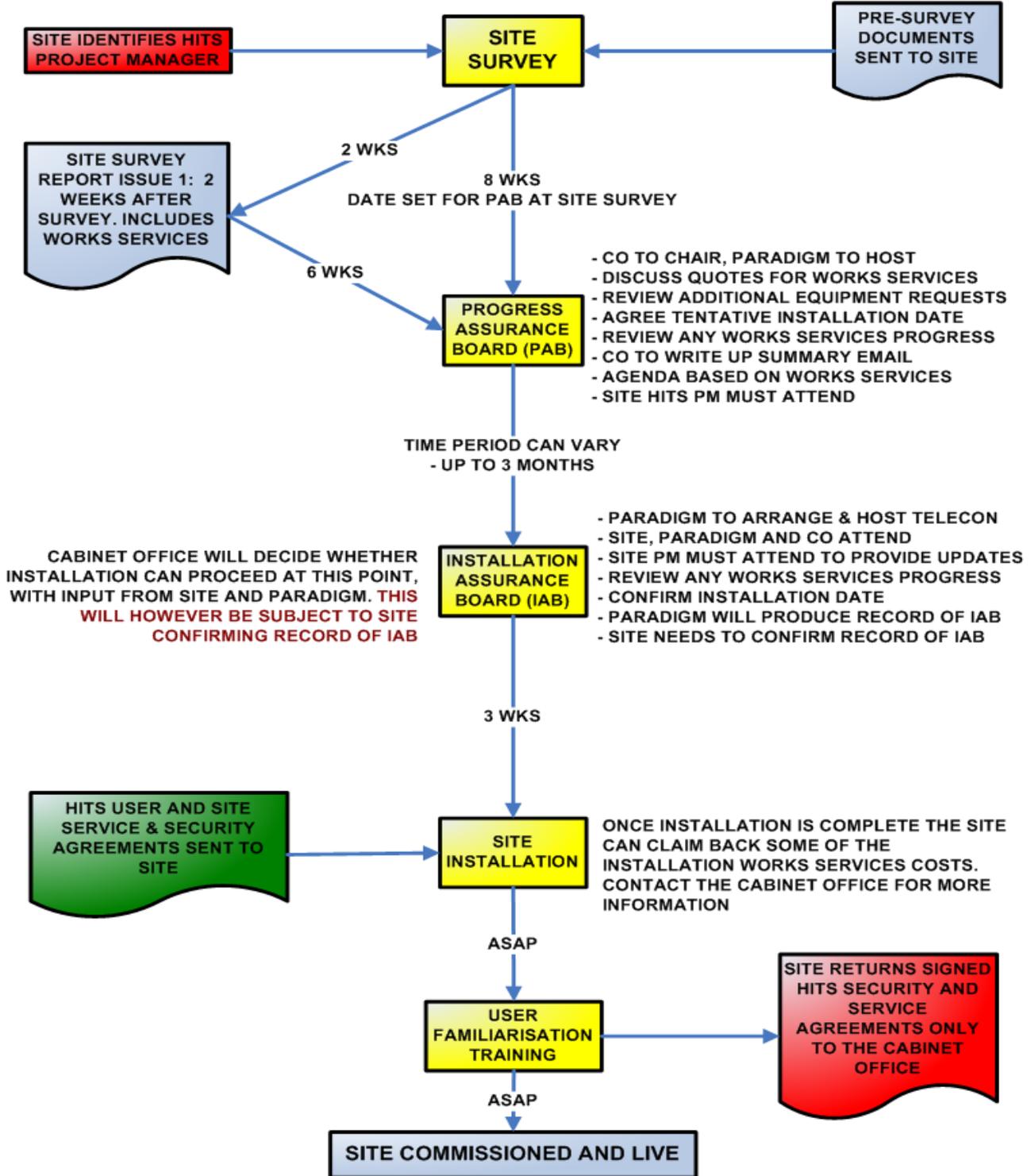
If you have any additional enquiries please contact HITS@cabinet-office.x.gsi.gov.uk.



HITS PROCESS FLOWCHART - INSTALLATION

INSTALLATION PROCESS FOR HITS SITES

KEY: CABINET OFFICE ACTIVITY SITE ACTIVITY
PARADIGM ACTIVITY JOINT SITE & PARADIGM





HITS PROCESS FLOWCHART - FINANCES

FINANCIAL REIMBURSEMENT PROCESS FOR HITS WORKS SERVICES

KEY: CABINET OFFICE ACTIVITY SITE ACTIVITY PARADIGM ACTIVITY JOINT SITE & PARADIGM → IDEAL PATH → PROBLEM PATH

