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# IETF Meeting Network and Other Technical Requirements draft-palet-ietf-meeting-network-requirements-00.txt

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#### Abstract

This document should be used together with  $[\underline{1}]$  and provides the IAD with network, terminal room and other technical requirements for selecting venues for IETF meetings.

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# **1**. Introduction

This document describes network, terminal room and other technical criteria for venue selection, including some details related to the planning. All this details are required in order to accommodate the IETF meeting with technical guarantees of successful working capabilities for the attendees.

As in the case of [1], generally, this document does not present a strict list of "MUST" items. Instead, it lists what needs to be evaluated, various alternative solutions, or combinations thereof, that may apply. In the end, the IAD will make the final decision and will be accountable for it, and therefore he is responsible for applying the criteria defined in this document.

Experience shows that things could go wrong when there is too strict a dependence on specific people or equipment and when no alternatives are provisioned for. Consequently, contingencies are a very important consideration.

## 2. Venue Technical Requirements

The venue being evaluated for hosting IETF, should comply with several generic technical requirements, which will allow an adequate installation of the network, terminal room and some other relevant technical details. The facility chosen can have a dramatic impact on the ability to deliver a quality network to attendees, so this generic requirements are of key importance:

- o Telecommunications room availability.
- o Adequate ventilation to support the equipment rooms and the terminal room.
- As much physical separation as possible in the meeting room area (avoid air-walls where possible).
- o A mechanism providing access 24 hours a day to the network installation team, ahead of the meeting for the minimum required deployment work.
- o Availability of an appropriate wiring plan (power and data). Need to know the existing infrastructure (fiber, UTP/distances) and what can be done with it.
- o Access to the wiring, what can be used, what not. Some facilities have no wiring and that could be an important inconvenient,

especially in order to quickly deploy the wireless network. Feasibility/facility to setup new cables (fiber/UTP).

- o Roof access, in case a WLAN link is required.
- o If there is already a WLAN in the building, can it be turned off?.
- o Pipe. Putting the access points on something to raise them above the people's heads is useful. Acquiring the pipes, bases, and, in some cases, sand bags, should be considered, as many are needed for each access point.
- o Electrical power capacity.
- o 24 hours' power. Capacity and special distribution issues. Evaluation of the cost of extra power.
- o Facilities for AV: room dimensions for screens (height/width).
- o Evaluation of wireless voice communication ("Walkie Talkies" or hand-held radios). In some cases the secretariat can bring its own equipment, but in some occasions it is required to be rented from the hotel.

#### 3. Network Criteria for the Venue Selection

The following sections depict different key elements required for the adequate provision of the network required for the IETF meetings.

#### 3.1. Internet Upstream

Some facilities have great network access, others have none (no fiber links up to the venue). How much can be provisioned and in what time.

Highly reliable Internet link and BW are required.

20-25 Mbits (symmetric) is a minimum requirement today, however, higher capacity may be appropriate. Backup is needed.

Multihoming. This seems to be to strong requirement and will depend on the host's capabilities; however, multiple physical paths could be a replacement.

IPv4 unicast and IPv4 multicast. Is not clear IPv4 multicast will be used anymore, but it should be available if required.

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IPv6 unicast and multicast.

No content filtering or ACLs and consequently must not must not be prohibit end-to-end connectivity to any external sites.

### <u>3.2</u>. Wired Network

A wired link is required for the registration desk/secretariat with configuration to support the registration desk firewall requirements.

Wires to all essential services (e.g., audiocast, chairs, presenter, jabber scribe), especially in each meeting room for audio recordings.

Separate VLANs for wired-terminal room, wired-registration desk/ secretariat, wired-audiocast (and other essential services) and wireless traffic.

Must support IPv6.

Support multicast (multicast is not currently used to support remote participation, but it may change and specific multicast requirements should become available.

It could be convenient to consider managed devices across the entire network.

## <u>3.3</u>. Wireless Network

IEEE 802.11b/g service must be available in all the meeting rooms (as identified by the Secretariat), the registration area, and the terminal room.

The WLAN coverage must also be sufficient in additional common spaces including hotel lobby, hotel bar, hotel restaurant, most commonly used hallways, etc.

IEEE 802.11a coverage must be also available in as many as the above named spaces as possible, focusing on the most dense user requirements (plenary meeting room) first.

The WLAN must provide fully open (unsecured) wireless access and may provide additional secured (WEP, 802.11i) services.

Must support IPv6.

## 3.4. Network Services

DNS (IPv4 and IPv6).

DHCP (IPv4), noting that there are a wide variety of DHCP clients.

SMTP server (IPv4 and IPv6).

FTP (IPv4 and IPv6), including a full on-site mirror of the RFCs and I-Ds.

WWW (IPv4 and IPv6).

A caching proxy may be useful (IPv4 and IPv6).

SAMBA (local on-site mirror of IDs).

IDS and other security issues should be covered (IPv4 and IPv6).

NTP services may be helpful (IPv4 and IPv6).

A pool of IP addresses for static assignment, even if discouraged to use, should be available.

Printing services including BSD lpd/lpr and postscript level-2 support. Printer spooling services should also be available.

All the network services must be of a production quality. IETF network can not be used for any experimental purposes, unless is proven and clear that they will not disrupt the minimum requirements indicated in this section.

#### 4. Terminal Room Criteria for the Venue Selection

Should be accessible at least from 08:00 AM to 12:00 PM.

Should have adequate number of 10/100 Ethernet RJ-45 ports/drops.

Two enterprise-class printers should be available. A third spare one is good to have. Transparency printing may be also available.

A help-desk should be available for a sufficient number of hours.

Security (guards) service are also required.

#### 5. NOC

Is required to establish a support group or NOC, which will be responsible to manage the network and other technical issues, including concrete aspects such as:

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- o Setup and maintain a meeting NOC web page with all the required information.
- Document what can be wrong with the WLAN in advance to inform users (FAQ to users). Provide a document to attendees detailing configuration information (wireless, services (e.g. printing, SMTP)) on-site and prior to the meeting if possible (IETF meeting web site and NOC meeting web site).
- o Make sure to test the network under heavy load.
- o Primary and backup contacts for all the issues/topics should be available.
- o Provide stats and info on network status.
- o WLAN expertise and debugging/monitoring is required.
- o White board for the NOC, in visible place, possibly in the terminal room.

## 6. Other Technical Criteria for the Venue Selection

Sufficient power strips must be available in the terminal room and the meeting rooms. Additional power strips also should be available in common gathering areas.

Notify attendees of power connector requirements prior to the meeting (via the IETF meeting web page and IETF-announce mailing list, possibly also via the meeting NOC web page).

Maintain spares of critical spares on-site.

#### 7. Technical Risks and Contingencies

TBD.

## 8. Timing and Planning

TBD.

## 9. Venue Acceptance/Rejection Report

TBD.

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## **<u>10</u>**. Security Considerations

This document does not have any protocol-related security considerations.

## **<u>11</u>**. IANA Considerations

This document does not have any specific IANA considerations.

# 12. Acknowledgements

The author would like to acknowledge the inputs of Brett Thorson, Jim Martin, Joel Jaeggli and Karen Odonoghue.

## **13**. References

## <u>13.1</u>. Normative References

# **<u>13.2</u>**. Informative References

[1] Palet, J., "IETF Meeting Venue Selection Criteria", <u>draft-palet-ietf-meeting-venue-selection-criteria-04</u> (work in progress), January 2006.

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