**Small Community Networking**

IP Office systems linked by IP trunks can enable voice networking to form a Small Community Network (SCN). Within an SCN the separate IP Office systems 'learn' each other's extension numbers and user names. This allows extension calls between systems and support for a range of internal call features, see Supported SCN Features.

### Capacity

The following are the supported capacity limits for a Small Community Network system.

<table>
<thead>
<tr>
<th>IP Office Software Level</th>
<th>Pre-5.0</th>
<th>5.0+</th>
<th>6.0+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Number of IP Office Systems</td>
<td>16</td>
<td>32</td>
<td>32</td>
</tr>
<tr>
<td>Maximum Number of Users</td>
<td>500</td>
<td>500</td>
<td>1000</td>
</tr>
<tr>
<td>Maximum H323 SCN Line Hops Between Systems</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Star H323 SCN Line Layout</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Serial H323 SCN Line Layout</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Mesh H323 SCN Line Layout</td>
<td>✗️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
</tbody>
</table>

- Small Community Networks using IP Office's with differing software levels will operate (see Software Level Interoperation below). However for a Small Community Network with more than 16 systems, only IP Office Release 5 systems are supported. If a pre-IP Office Release 5 system is included in a network of more than 16 IP Office systems, it will not receive any SCN support.

### Configuration Summary

To set up a small community network, the following are required:

- A working H323 trunk between the IP Office systems, that has been tested for correct voice and data traffic routing.
  - The arrangement the H323 trunks must meet the requirements detailed in Supported SCN Network Layouts.
  - On IP500 and IP500 V2 systems, H323 trunks require the entry of IP500 Voice Networking licenses.
- VCM modules are required in all systems.
- The extension, user and group numbering on each system must be unique.
- The user and group names on each system must be unique.
- We also recommend that all names and numbers (line, services, etc) on the separate IP Office systems are kept unique. This will reduce potential maintenance confusion.
- All systems should use the same set of telephony timers, especially the Default No Answer Time.

### Software Level Interoperation

SCN is supported between IP Office systems with the same major software level or one level of difference in major software level. For example between 4.2 and 4.1 (same major level) and between 5.0 and 4.2 (one major level of difference).

This option is intended mainly to allow the phased upgrading of sites within a Small Community Network. It is still recommended that all systems within a network are upgraded to the same level where possible. Within a SCN using differing levels of software, network features will be based on the lowest level of software within the network.
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http://marketingtools.avaya.com/knowledgebase/businesspartner/ipoffice/mergedProjects/manager/scn_scn.htm

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