

Overlapping dial-plan support

Overview

The following table resumes the list of UC Suite applications that support overlapping dial plan, with possible limitations and requirements.

Please, notice that it applies to a single CUCM cluster. In a multi-cluster scenario, further requirements and limitations (not indicated here) apply.

In the next paragraph you can find some additional details about the different applications.

Application	Support (Full/Partial/No)	Requirements	Limitations
Call Recording	PARTIAL	<p>Users should record using Built-in Bridge or Network Based recording technologies.</p> <p>The Numeric User/Partition Id mechanism must be used to distinguish users having the same directory number.</p>	<p>SIPREC recording is not supported.</p> <p>DIAL-IN recording is not supported.</p>
Advanced Queuing & Auto Attendant	NO	<p>Too many requirements apply but, normally, this is out of our control, so we prefer it is not supported at all.</p> <p>Actual requirements:</p> <ul style="list-style-type: none"> • Agents phone numbers must be unique across the cluster (and the IAS) • ACD queue numbers must be unique ((not overlapping with any other QME/IVR number). • IVR service numbers must be unique (not overlapping with any other QME/IVR number). 	-
Attendant Console	YES	<p>If using the console with Advanced Queuing, above mentioned constraints apply.</p> <p>The preferred devicename of UC Suite user must be populated for Att.Console users.</p>	-
Call Analytics	FULL	<p>Call Analytics for Cisco UC includes a Partition-aware driver, to support overlapping extensions on different Partitions. Remember that the partition field can be synchronized only when synchronizing with CUCM, using the Primary-Line number of the CUCM end-user. For all other cases, it must be manually populated (CSV import).</p> <p>Starting from Summer 2021 release, each user can be associated to a specific PBX "SITE", allowing overlapping extensions on different platforms/gateways, independently from Partition ID.</p>	<p>If Partition-aware driver is used, extension numbers in reports and filters appears in the composite format: <DN>.<PartitionName> (i.e. 2501.PT_Rome_IPPhones)</p>
Phone Lock	YES	<p>Phones must be TAPI controlled.</p> <p>The MAC address and/or the partition field must be valued for each IAS user.</p>	CURRI is not supported.
Budget Control	YES	Both the Billy Blue's and the Stonelock requirements (mentioned above) apply.	Both the Billy Blue's and the Stonelock limitations (mentioned above) apply.

Digital Fax	PARTIAL	Fax numbers must be unique (the E.164 numbering is recommended!).	-
Contact Manager	PARTIAL	If Caller Lookup is needed, it must be done using TAPI.	CURRI Caller Lookup is not supported. Smart Numbers are not supported.
VoiceMail	PARTIAL	Users having the same DN must have different voice mail numbers.	VoiceMail IVR cannot be used.
Hotel Services	NO	The phones numbering plan must be flat (not overlapping). Only room numbers can overlap in a multi-property scenario, we distinguish them using the property prefix number.	-

Technical details

Assumptions

- In the following description the term "directory number" must be intended as the real directory number registered into the Call Manager.
- The following considerations applies both to a single tenant scenario with multiple sites and a shared instance (multi-tenant) scenarios

Call Analytics:

- Driver with partition must be used to distinguish the different customers or sites. This means that:
 - ◆ All Imagicle users must be defined in the UCS with their partition name information. Partition can be imported from CUCM (see [here](#) for detailed instructions).
 - ◆ All extensions will be represented in reports and filters in the long format: <DN>.<PartitionName> (for instance: *1019.PT_Cu20Si30-Feature*)

Advanced Queuing and Attendant Console

- Advanced Queuing places consultation calls to queue agents, directly addressing their directory numbers. All of such calls are originated by AdvQue SIP trunk, so the same CSS applies to all consultation calls. As a consequence, the agents' directory numbers must be unique, that is, you cannot have two or more agents (of different sites or customers) with the same directory number.
- Queue numbers must be unique in the system: the same queue number cannot be assigned to multiple sites or customers. The same constraint applies to queue-specific login/logout service numbers.

Phone lock and Budget Control:

- The TAPI engine must be used (the ECC mechanism cannot work in an overlapped dial-plan).
- All Imagicle users must have the MAC address field populated (manually or from CUCM) or the partition name, in order to distinguish different phones (hence users) having the same DN.

Contact Manager:

- The caller lookup feature, leveraging the ECC mechanism, can be used if only public directories are defined in Contact Manager. In facts, tenant/department directories and personal directories are not properly handled in such scenario.
- Alternatively, the caller lookup can be done using the TAPI engine. As a consequence:
 - ◆ Sizing considerations should be done both on the CUCM cluster and Imagicle servers to support a large number of TAPI lines.
 - ◆ Only supported IP Phones can leverage this feature. Jabber Clients cannot leverage this feature
 - ◆ The MAC address information must be properly populated for every application suite user, in order to

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distinguish different phones (hence users) having the same DN.

- Similarly to caller lookup feature, the Smart Numbers feature can be used if only public directories are defined in Contact Manager. Moreover, regular users should not be allowed to edit their personal or department directories, since their personal smart number could apply to other users having the same DN.

Call Recording:

- Media Forking recording (built in bridge / network based) is supported:
 - ◆ Multiple Recording profiles must be defined in the CUCM to distinguish different sites or customers.
 - ◆ The numeric user/partition id mechanism must be used to distinguish different users having the same DN.
- Dial-In recording is NOT supported:
 - ◆ The Call Recording IP Phone service cannot work properly when multiple users having the same DN are enabled to Call Recording.
 - ◆ The same happens for the automated recording service button URL.

Digital Fax

- Digital Fax numbers should not overlap at all: different users must have different fax numbers (E.164 numbers are recommended).

VoiceMail

VoiceMail could work with the following requirements and limitations that normally are not acceptable in a real-world scenario:

- Each user must be defined with a different (unique) voicemail number.
- The telephony interface (IVR) cannot be used in an overlapped dial plan. All of the operations normally available through VoiceMail IVR should be done using the WEB interface. These include:
 - ◆ Listening to new messages
 - ◆ Deleting and archiving messages
 - ◆ Recording a new welcome prompt
 - ◆ Changing the user PIN