

# AltiWare HPBX ™ 5.0A Supplement

to AltiWare OE/ACC 5.0 System Installation and Administration Manual

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### Contents

AltiServ HPBX Overview
System Capacity 1
AltiServ HPBX Licensing
System Requirements
System Support
Boards Support
Installation
Upgrade Path
Restoring the Previous Version of AltiWare 4
New HPBX 5.0A Features
AltiServ HPBX Configuration GUI Changes
General Page - Extension Configuration
Tenants Page - System Configuration7
Holiday Page - System Configuration
DNIS Page - System Configuration
Auto Attendant
Line Park Configuration
Paging Group Configuration 12
Trunk Configuration - General
Configuring the Multi-Tenant Table
Modifying the Tenant Table15
Other HPBX 5.0A New Features
Tenant Based Music Source Support
AltiGen SDK 2.8.1 Support 16
Disabled RTM MultiCast in AltiServ
Unsupported Feature Codes
Unsupported Applications17

#### ii HPBX 5.0A Supplement

### AltiServ HPBX Overview

AltiServ HPBX is the first affordable IP Hosted PBX for small organizations supporting up to 400 users and 100 separate organizations per server platform. AltiServ HPBX is an overlay software application applied to AltiWare OE. And since AltiServ HPBX is modular, service providers can add servers only as needed. Rack and stack multiple AltiServ HPBXs to grow your business.

AltiServ HPBX provides the features of an IP PBX and optional integrated contact center to the subscriber without the up front costs and support overhead of premise based equipment. AltiServ HPBX enables service providers and customers the ability to perform moves, adds, and changes using intuitive interfaces.

Clients can be in the same building, different buildings, remote locations or a combination of all geographical configurations. Tenant organizations or a hosted PBX subscriber's companies can be as small as one and as large as 400 working off the same system, all company sizes will benefit from the powerful, productive and easy to use feature set. The combination of services offered can be different for subscribing company.

#### Important Notes

• The AltiServ HPBX option is a separate installation from AltiWare, which requires the purchase and activation of the **HPBX 5.0A Base License**, and can only be applied to AltiWare OE/ACC 5.0A (or later versions).

### System Capacity

- Up to 8 single span T1/E1/PRI boards per system
- Up to 400 IP extensions (including 120 G.723.1 or 60 G.711 sessions
- Up to 99 tenants and one System Tenant (Tenant ID "0")
- Up to 156 analog extensions
- Up to 100 Business Hour and Holiday profiles
- Up to 255 Auto Attendants
- Up to 32 Workgroup/Hunt Groups (128 agents per group)
- Up to 200 AltiView sessions

• Up to 40 AltiConsole sessions

### **AltiServ HPBX Licensing**

The following new licenses are added in AltiServ HPBX:

• AltiServ HPBX Base License - enables AltiWare to support multiple tenant features and generates the External Logger License.

The following existing license is *changed* in AltiServ HPBX:

- **IP Extension License** is no longer needed for eaither Alti-IP 600 Phone or third party IP phones.
- Station License is required in HPBX 5.0A
- Other OE 5.0A Licenses are supported in HPBX 5.0A

### System Requirements

- AltiWare OE/ACC 5.0A
- AltiServ HPBX Base License

### System Support

The following operating systems are supported in HPBX 5.0A:

- For AltiWare Server: Windows 2000 Server w/SP4, Windows 2000 Professional w/SP4 (SmallOffice and AltiServ1 IP only), Windows Server 2003
- For External CDR Databases: Microsoft SQL Server 7.0, Microsoft SQL Server 2000
- For **HPBX Admin**: Windows 2000 Server/Professional with SP4, Windows Server 2003, Windows XP Professional
- For AltiGen SDK 2.8.1: ActiveX Control for AltiView/AltiAgent same OS support at AltiView/AltiClient; AltiAPI - Windows 98 Second Edition/Windows 2000 Server/Professional/Windows XP Professional/Windows 2003 Server
- For Alti-IP 600 Hardware: Levels 01, 02, 03 04 are supported; Alti-IP 600H and Alti-IP 600PH are supported.

### **Boards Support**

The following types of board are supported in OE, ACM, and HPBX 5.0A:

- Quantum 4x8 Board Rev. D9 or above
- Quantum 8x4 Board Rev. D9 or above
- Quantum 0x12 Board Rev. D9 or above
- Quantum 4x8 DID Board Rev. D9 or above
- Triton T1/PRI Board (1.544 MHz) revision A3 or above.
- Triton T1/E1/PRI Board (2.048 MHz)
- Triton IP Boards revision A3 or above, which includes
  - IP 4-Port Board

  - IP 30-Port Board (G.711 Only) (same hardware as 12-Port IP Board)
- Triton Analog 12-Extension Board Rev A3 or above
- Triton Analog 12-Trunk LS/GS Board Rev A3 or above
- Triton Analog 12-Trunk LS Board Rev A3 or above
- Triton Resource Board Rev A3 or above

### Installation

**Important:**For a new installation, AltiWare OE/ACC 5.0A must be installed AND the AltiServ HPBX Base License must be registered *prior to* or *during* installing AltiWare HPBX.

- 1. To install AltiServ HPBX, launch **Setup.exe** from the AltiServ HPBX folder.
- 2. The installation will check if the system has the HPBX Base License installed and registered. If the HPBX Base License is not registered, the application will stop installing.

### Upgrade Path

The following migration/upgrade/migration paths are supported:

• OE/ACC 5.0A to HPBX 5.0A

• HPBX 4.6 to HPBX 5.0A

### **Restoring the Previous Version of AltiWare**

Restoring to AltiWare OE/ACC 5.0 or lower requires that you restore backed up files from the prior release. Before you begin, you should have backed up all the prior release configuration information as described for installation preparation in the 5.0 System Installation and Administration Manual.

**Important:**In the event that you wish to restore the previous version of

AltiWare without losing your system configuration, you should back up the following directories before upgrading your system to OE 5.0A:

- 1. <drive:>\altiserv\db\\*.\*
- 2. <drive:>\altiserv\sp\\*.\*
- 3. <drive:>\altiserv\phrases\langcustom\\*.\* (if you have recorded any custom phrases).
- 4. <drive:>\postoffice\\*.\*

#### To restore a previous version of AltiWare, follow these steps:

- 1. Stop the AltiGen services as described in the 5.0A System Installation and Administration Manual.
- 2. Uninstall AltiWare HBPX 5.0A as described in the 5.0A System Installation and Administration Manual.
- 3. If they are installed, uninstall AltiView, AltiConsole, AltiAdmin, and CDR Search, following the manual procedures for those applications.
- Delete the following components using the Control Panel → Add/Remove Program:
  - AltiView VM Service
  - Quantum SP
  - Triton SP
  - Triton Analog SP
  - Triton T1/PRI SP
  - Triton VoIP SP
- 5. Remove the "\altiserv" directory and any subdirectories.
- 4 HPBX 5.0A Supplement

- 6. Shut down Windows and power down the computer.
- 7. Install the previously removed older Quantum/Triton boards back into the computer.
- 8. Reboot the computer.
- 9. Reinstall the previous OE and the previous version of other client/server programs such as AltiView, AltiConsole, AltiAdmin, and CDR Search.
- 10. Stop AltiGen Switching Services as described the 5.0 System Installation and Administration Manual.
- 11. Restore your backups.
- 12. Reboot the computer.

### New HPBX 5.0A Features

The following new features are included in HPBX 5.0A:

- Tenant based manager extension support
- Tenant based music source support
- Support for AltiGen SDK version 2.8.1
- Tenant based Line Park Appearance
- Tenant based Paging Groups
- Disable RTM multicast in AltiServ
- Mobile Extension
- IP extension auto fail over
- Force Account Code for long distance number only
- Emergency (911) call notification to extension, group, or an outside number
- Dialed digit Translator Enhancements
- Extension based feature profile
- #27 Station Login behavior change
- "Allow Do Not Disturb Feature" option is removed from the **Answering** page of **Extension Configuration**

### **AltiServ HPBX Configuration GUI Changes**

After AltiServ HPBX 5.0A is installed, the following screens in AltiWare will be updated to allow for multiple tenant configuration.

### General Page - Extension Configuration

tension Configuration 1001 : Physical(Agent)					
General Group Station Speed Mailbox Sel	tting Notification Restriction Answering One Number Access Monitor List				
Extension         Type         Location           1001         Physical[Agent]         00:00           1002         Physical[Agent]         00:02           1003         Physical[Agent]         00:02           1003         Physical[Agent]         00:02           1004         Physical[Agent]         00:04           1005         Virtual[Agent]         00:04           1005         Virtual[Agent]         100           1007         Virtual[Agent]         100           1008         IP         1009         Virtual[Agent]           1009         Virtual[Agent]         5001         Workgroup           5001         Workgroup         5002         Workgroup           5005         Workgroup         5005         Workgroup           5006         Workgroup         5008         Workgroup           5008         Workgroup         5001         Workgroup           5010         Workgroup         5010         Workgroup	Personal Information         First Name         Last Name         Password         DID Number         Project ID         ①         Transmitted CID         Tenant         1       tenant1         Enable Dial-By-Name Service         ✓       Enable Intercom         ✓       Enable Dial-By-Name Service         ✓       Enable Forced Account Code         ✓       Enable Forced Account Code         ✓       Enable Allowed         ✓       For Long Distance Call Only         SMTP/POP3 Setting       Email Name         Email Name       Extitution         ✓       Retrieve Voice Mail By E-mail Client				
Physical Location Stot 0 Previous Channel 0 Net	Forward Email Address Forward Email Forward Voice Mail				
Add Delete	C Hardgroup     Workgroup     Drane licely				
Line Properties Feature Profile 1 - Sale Group	Number Field: Caller Number 💌				
Print Apply to	OK Cancel Apply Help				

Figure 1. General Page, Extension Configuration

In the General page of Extension Configuration:

• **Tenant** field—a drop-down list of Tenant IDs (groups) to which the extension can be assigned. See "Tenants Page - System Configuration" on page 7 for more information on tenants. The setting can be applied to multiple extension by using the **Apply to** button.

**Note:** If an extension is assigned to N/A in the Tenant drop-down list, the extension is able to access all trunks, even though the trunks have been assigned to tenants.

ystem Configuration General Number Plan Business Hours Messaging IP Dialing Table DNIS	Holiday         Call Restriction         Account Code         Call Reports           Tenants         Logout Reason         Activity         Feature Profiles
ID Name tenant1 2 tenant2 3 tenant3	Number         First Name         Last Name           1001         1002         1005           1006         1008         5001           5001         6001         6001
Add Edit	Tenant Operator: 1001
	OK Cancel Apply Help

### **Tenants Page - System Configuration**

Figure 2. Tenants page, System Configuration

In the **Tenants** page of **System Configuration**:

• **Tenant Operator** field—each tenant group is assigned a local operator. This local operator can only be accessed by members of this tenant group.

When a call is routed into a tenant's Auto Attendant, the tenant extension's voice mail, or if the tenant extension dials the operator, this call will be sent to the specified tenant operator.

If the tenant operator is not configured, this call will be routed to the System Tenant (Tenant ID "0") operator.

• Tenant Manager field— an extension in each tenant group can be assigned as a tenant manager. The tenant manager can record 1,000 customized phrases (0000-0999) for its auto attendant and queue. Tenant-based custom phrases are also supported through Tenant Base Manager Extension feature. The phrases recorded by the Tenant Manager Extension are stored under AltiServ\phrases\tenant <ID> custom folder, where <ID> is the tenant ID, e.g. Tenant1Custom

### Holiday Page - System Configuration

tem Configuration	
Messaging   IP Dialing Table   DNIS General   Number Plan   Business Hou	Tenants Logout Reason Activity Feature Profiles rs Holiday Call Restriction Account Code Call Reports
Holiday Profiles Profile test1 T	enant 1 tenant1 💌 Add Delete
Holidau Description	Normal
08/09/2004 Holiday One	Holiday Monday , August 09, 2004 💌
	Description Holiday One
	C Route Incoming Calls to Extension 1001
	C Route Incoming Calls to Auto Attendant
	Route Incoming Calls to Operator
	Special hours
	Houte Incoming Lais to Extension
	C Route Incoming Calls to Auto Attendant 11
	C Route Incoming Calls to Operator
Add Delete	Apply to
	UK Cancel <u>Apply</u> Help

Figure 3. Holiday page, System Configuration

In the Holiday page of System Configuration:

- **Tenant** drop down list selection based on setting in the Tenants window. See "Tenants Page System Configuration" on page 7 for more information on tenants.
  - **Note:** The routing destination, extension or Auto Attendant must be in the same tenant as specified in the **Tenants** field. If the Operator is selected destination, a tenant operator must be specified in the **Tenant** field.

### **DNIS Page - System Configuration**

Number Name 5102222 testdnis	Name
	testdnis
	Workdays During Business Hours
Business Hours Business Hours 1  Holiday Holiday Profile 1 Tenant  Add Delete	Non Workdays © Route Incoming Calls to Extension 1001 © Route Incoming Calls to Auto Attendant © Route Incoming Calls to Operator

Figure 4. DNIS page, System Configuration

In the **DNIS** page of **System Configuration**:

- **Tenant** drop-down list selection based on settings configured in the **Tenants** window (see "Tenants Page System Configuration" on page 7).
- **Note:** The routing destination, extension, or Auto Attendant, must be in the same tenant as specified in the **Tenant** field. If the Operator is selected destination, a tenant operator must be specified in the **Tenant** field.

### Auto Attendant

The Auto Attendant configuration windows (Auto Attendant Select dialog box and Auto Attendant Main Window) will display fields for Tenant Name.

Auto Al	ttendant Select			×
ID	Name		Tenant Name	
1 2 3 4 5 6 7 8 9 10 11 12 13 14	rvaine			
15 16 Add	d Edit	Clear	xport Close	Help

Figure 5. Auto Attendant Select dialog box

uto Attendant 1			
<ul> <li>□ - expand tree</li> <li>1 - system callback</li> <li>2 - no action</li> <li>3 - data routing 1003</li> <li>⊕ 4 - get digits (productid 4-6)</li> <li>5 - no action</li> <li>6 - no action</li> <li>7 - no action</li> <li>8 - no action</li> <li>9 - no action</li> <li>9 - no action</li> <li>0 - to operator</li> <li>* - repeat level</li> <li># - mail box access</li> <li>T - to operator</li> </ul>	Item Name	0 1 ± Level - Expand Tree	
Tenant group 1		K Cancel Apply Help	

Figure 6. Auto Attendant, main window

### Line Park Configuration

Line Park Groups System Ip1 Ip2	Member Lines Member List: 61 <u>&lt;</u> -Add	Non-member List:
	Remove ->	13 14 15 17 18 19 20 21 22 23 V
	Prompt Play ring back tone before answered Play Greeting Phrase 555	Line Park Timeout Enable Line Park Iimeout 2 minute(s)
Add Delete	Pick Up Allow #51 to pick up line parked call	Exit Line Park Go to AA 11
Te <u>n</u> ant: 1 tenant1 💌	OK Cancel	Apply Help

The Line Park configuration window will display a field for Tenant.

Figure 7. Line Park Configuration

**Note:** If the exit destination is the Auto Attendant, the Auto Attendant must be in the same tenant as specified in the **Tenants** field. the phrase is also a tenant-customized phrase.

### Paging Group Configuration

The Paging Group configuration window will display a field for Tenant.

ing Group		
Static	General Group Member	
6001	Group Information	
6002 6003	First Name Last Name	
6004 6005	Password xxxxxxxxxx	
6006 6007	Tenant 1 tenant1	
	Description	

Figure 8. Paging Group Configuration

### **Trunk Configuration - General**

The General page of Trunk Configuration will display a field for **Tenant Selection**.

runk Config	uration	Card:	2 Channel:0		
General In	Call Rou	iting Ou	t Call Blocking		
Location	Туре	Access	Code Phone	N 🔺	Trunk Information
02:00	PRI	9	•		Access Code: 9 V
02:01	PBI	9			C Incoming
02:02	PBI	9			Area Code:
02:03	PRI	9	•		
02:04	PRI	9	•		Dhave Number
02:05	PRI	9	•		C E911
02:06	PRI	9	•		
02:07	PBI	9			Description
02:08	PRI	9			
02:09	PRI	9	-		· · · · · · · · · · · · · · · · · · ·
02:10	PRI	9	-		- Trunk Call Bredial String
02:11	PRI	9	•		
02:12	PRI	9	•		I Trunk Predial String
02:13	PRI	9	•		
02:14	PBI	9	-		Centrex Transfer
02:15	PRI	9	-		The state Transfer Desided Online
02:16	PBI	9	-		I chaple I ransfer Fredial String
02:17	PBI	3	•		Note: Flash will be used if predial string is not set.
02.10		3	•		
02:13		3			Trunk Dialing Scheme Attribute
02.20	DDI	3			
02.21	DDI	3			O Uverlap 💿 In Service
02.22	ID	0	-		En-bloc     Out Of Service
03:00	IP	8			
03:07	IP.	8	-		Holiday Profile
03:02	IP.	8 8			Sustem
03:04	IP.	8 8			
03:05	IP.	8 8			- Pupinges Hour Profile
03:06	 IP	ă	-		Tenani Selection
03:07	 IP	8 8			System V O NA V
03:08	 IP	š			
12100				Ľ	Trunk Properties
					Trank Toportos
Duint	1 .	du ta			OK Conset ( Andre 1994)
Print	App	ny to			UN Lancel Apply Help

Figure 9. General Page, Trunk Configuration

### Configuring the Multi-Tenant Table

Configuring the multi-tenant table involves first adding entries to the tenant list, then using Extension Configuration and Trunk Configuration to assign extensions and trunks, respectively, to tenant IDs.

#### To create tenant entries:

- 1. In the Tenant window, click the **Add** button to open a small Tenant Configuration dialog box.
- 2. In the dialog box, type in the **Tenant Name** and click **OK**. Then click the **Apply** button in the Tenant window. The tenant ID is assigned automatically and sequentially.
- 3. Repeat the above steps for all the tenants you want to add, then click **OK** to close the System Configuration window.

Note: The maximum number of tenants is 100.

#### To assign extensions to tenant IDs:

- 1. Select **Extension Configuration...** on the **Management** menu to open the Extension Configuration General window.
- 2. For each extension you want to assign to a tenant ID:
  - a. In the Extension list, select and highlight the extension you want to assign to a tenant ID. Each extension can be assigned to only one tenant ID.
  - b. Select a tenant ID in the **Tenant** drop-down list under Personal Information, then click **Apply**.
- 3. Repeat the previous step for each extension you want to assign. When you're done, click **OK** to close the Extension Configuration window.

#### To assign trunks to tenant IDs:

- 1. Select **Trunk Configuration...** on the **Management** menu to open the Trunk Configuration General window.
- 2. For each trunk you want to assign to a tenant ID:
  - a. In the trunk list, select and highlight the trunk you want to assign to a tenant ID.
  - b. Select a tenant ID in the **Tenant Selection** drop-down list, then click **Apply**.
- 3. Repeat the previous step for each trunk you want to assign. When you're done, click **OK** to close the Trunk Configuration window. When a trunk is assigned a tenant ID, the outgoing calls made to this trunk can be initiated by the tenant users ONLY.

**Important:** When creating Tenant entries for IP extensions, the IP trunk must have the same Tenant Name assigned as the IP extension.

### Modifying the Tenant Table

**Note:** If the administrator changes the tenant group of an *extension*, *Auto Attendant* or *DNIS number*, the administrator must also check and change other extensions or system configurations to make sure the tenant group is not crossed by forwarding, etc. AltiAdmin will not automatically check and update.

#### To edit the tenant name:

Double-click the name in the Tenant window (or select the name and click Edit), then change the name in the dialog box that appears.

#### To change the extension-to-tenant ID assignment:

Open the Extension Configuration General window, as discussed in the steps on the previous section under "To assign extensions to tenant IDs:," and use the **Tenant** drop-down list to change the tenant ID assigned to any extension.

If a tenant ID is already assigned, you must change or remove the assignment from the old extension before you can assign it to a new one.

**Note:** If an extension is assigned to **Tenant ID 0** in the **Tenant** drop-down list, the extension is able to access all trunks and extensions, even though the extension/trunks have been assigned to tenants.

#### To change the trunk-to-tenant ID assignment:

Open the Trunk Configuration General window and use the **Tenant Selection** drop-down list to change the tenant ID assigned to any trunk.

**Note:** If a trunk is assigned to **Tenant ID 0** in the **Tenant Selection** drop-down list, the trunk is accessible to all extensions, even though there are tenant assignments.

#### **Tenant Limitations**

• When making any tenant-related changes, such as re-assigning a tenant group to another extension, the administrator must make sure that all previous tenant-assigned configurations correspond to the new changes.

### **Other HPBX 5.0A New Features**

### Tenant Based Music Source Support

Each tenant can have different music for hold files. Music file format can be ADPCM or PCM. PCM format is recommended. A VoIP board is required.

To assign a music file to a tenant group, rename the music file you wish to use to "Music0001" through "Music0099." (The 4 digit number represents the number of the tenant group. So the file "Music0012" will play this music file for the Tenant Group assigned as "12" in HPBX Admin. Once you have renamed the music file, place the file into the AltiServ phrases folder of system running HPBX Admin. (AltiServ > Phrases > Music). If a file is not assigned to a tenant group, the system music file will be played (set in Audio Peripheral Configuration).

### AltiGen SDK 2.8.1 Support

AltiGen SDK 2.8.1 includes tenant implementation. The interface stays the same as SDK 2.8, but the function returns only tenant data.

### Disabled RTM MultiCast in AltiServ

RTM multicast feature will is disabled in HPBX 5.0A. The RTM data will only be sent through TCP.

### **Unsupported Feature Codes**

The following feature codes are not supported in AltiServ HPBX:

- #35 Virtual Login (station privilege override)
- #37 Remote Call Forwarding
- #38 Outside Call Blocking (operator only)
- #39 Operator Offline (operator only)
- #44 Overhead Paging
- #45 Overhead Paging by Trunk
- #55 List Feature Tips

- #73 Silent System Call Park
- #88 System Speed Dial

### **Unsupported Applications**

- Alti-MSCRM
- APC
- AltiReach
- Exchange Integration
- DINA Manager
- TAPI
- AltiTouch 470

## Index

### Α

address AltiGen Communications, Inc. ii AltiGen Communications phone numbers ii AltiGen Communications, Inc. address ii AltiGen SDK 2.8.1 support 16 AltiServ HPBX overview 1 AltiServ HPBX Base License 2 assigning extensions to tenant IDs 14 assigning trunks to tenant IDs 14 Auto Attendant 10

### С

changing extension-to-tenant ID assignment 15 changing trunk-to-tenant ID assignment 15 configuration multi-tenant table 13 configuration GUI changes 6 creating tenant entries 14

### D

disabled RTM multicast in AltiServ 16

### Η

holiday page 8

installation 2

#### L

licensing changes 2

line park 11

### Μ

modifying tenant table 15 multi-tenant table configuration 13

### 0

overview AltiServ HPBX 1

### Ρ

paging group 12

### S

system capacity 1 system requirements 2

### Т

TCP port definitions 3 Tenant 9 tenant based music source support 16 tenant field 6, 8 tenant limitations 15 tenant manager 8 tenant operator 7 tenant table modifying 15 Tenants page 7

Index