



ALTIGEN
COMMUNICATIONS

410 East Plumeria Drive • San Jose, CA 95134
www.altigen.com • +1 (408) 597-9000

MAXCS Release 7.0 Update 1

All-Software Solution Deployment Guide

**Intended audience:
AltiGen Authorized Partners**

July 2014



Contents

Introduction	3
The Softswitch Small Business Deployment	3
The Softswitch Standard Deployment	3
Additional Licenses Available	4
Licenses Not Available	5
Requirements	5
About HMCP	5
Preparation	6
Quick Start	6
Installation	7
Step 1: Run the HMCP Certification Tool	7
Step 2: Install MAXCS	8
Step 3: Add the System Key.....	10
Step 4: Register Licenses.....	12
Step 5: Configure HMCP Resources.....	12
AltiGen Technical Support	13

AltiGen Communications, Inc.

410 East Plumeria Dr.
San Jose, CA 95134
Telephone: 888-AltiGen (258-4436)
Fax: 408-597-9020
E-mail: info@altigen.com
Web site: www.altigen.com

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Introduction

This document is provided for AltiGen partners who will be performing a fresh installation of MAX Communication Server (MAXCS) ACM Release 7.0 Update 1 All-Software Softswitch Solution for their clients.

There are two types of Softswitch deployments for MaxCS 7.0 Update 1:

- **Small Business Softswitch**
- **Standard Softswitch**

Some notes regarding this Softswitch installation:

- This is a software-only installation process.
- This installation does not support redundancy or gateway installation.
- All components must be installed on the same server.

The Softswitch Small Business Deployment

The Softswitch Small Business system is capped at 24 users and cannot be expanded. It includes the following licenses:

- 1 ACM Base license
- 1 HMCP Media license
- 24 Combo Station licenses
- 24 SIP Trunk licenses
- 24 Compressed VoIP Channel licenses
- 12 Meet Me Conf Resources

The Softswitch Standard Deployment

The Softswitch Standard bundle includes the following licenses:

- 1 ACM Base license
- 30 Port MeetMe Conference
- HMCP Media Server
- 1 AltiConsole license
- 1 Multilingual license

Note: These licenses can only be registered with the Softswitch system key.



Additional Licenses Available

The following additional license bundles are available for the Softswitch Standard deployment:

- The **Contact Center Combo license** bundle (ALTI-ACMCOMBO) includes the following licenses:
 - ▶ 5 Agent Combo licenses
 - ▶ 1 Supervisor Combo license
 - ▶ 1 AltiReport license
 - ▶ 1 MaxInsight license
 - ▶ 1 Advanced Call Router license
- The **Station Combo license** bundle (ALTI-COMBOSTATION-XX) includes the following licenses:
 - ▶ 1 Softswitch Station license
 - ▶ 1 MaxCommunicator/AltiView license
 - ▶ 1 IP Talk license
 - ▶ 1 Exchange integration license
 - ▶ 1 MaxMobile license
- The **Agent Combo license** bundle (ACM-COMBOAGENT-XX) includes the following licenses:
 - ▶ 1 Softswitch Station license
 - ▶ 1 IP Talk license
 - ▶ 1 Exchange integration license
 - ▶ 1 MaxMobile license
 - ▶ 1 ACM Agent seat
 - ▶ 1 MaxAgent seat
 - ▶ 1 MaxCall seat
- The **Supervisor Combo license** bundle (ACM-COMBOSUPVR-XX) includes the following licenses:
 - ▶ 1 Softswitch Station license
 - ▶ 1 IP Talk license
 - ▶ 1 Exchange integration license
 - ▶ 1 MaxMobile license
 - ▶ 1 ACM Agent seat
 - ▶ 1 MaxAgent seat
 - ▶ 1 MaxCall seat
 - ▶ 1 MaxSupervisor seat
- Other Softswitch-eligible licenses:
 - ▶ SSW ACM Agent Seat license
 - ▶ MaxAgent Session and Seat licenses
 - ▶ MaxSupervisor Session and Seat licenses
 - ▶ AltiConsole license
 - ▶ CTI Integration Connector Seat license
 - ▶ Call Recording Session and Seat licenses
 - ▶ SIP Trunk license



- ▶ Third Party SIP Device license
- ▶ VRmanager license
- ▶ MaxInsight Session license
- ▶ Client Application SDK Session license
- ▶ Trunk Control APC SDK Session license
- ▶ SightMax Integration license
- ▶ Salesforce Connector license

Licenses Not Available

The following licenses are not available for the MAXCS All-In-One Softswitch Solution.

- IP Gateway Expansion licenses (ALTI-GWEXP-01).
- AltiStation licenses (you must use either a SSW-STATION stand-alone license or a SSW-BASECOMBO-STD license instead).
- ACM-SEAT500 (you must use either a SSW-ACMAGENT stand-alone license or a SSW-ACMCOMBOAGENT license instead).

Requirements

- Dedicated Windows Server 2008 R2 SP1 Standard running on a 64-bit, Quad-core Intel @2.5GHz, 4GB memory, 160GB hard drive, or, for a virtual environment, VMware ESX 4.1 or 5.1 or Hyper-V 6.2.9200.16384; allocate 4 Intel cores @ 2.5GHz each, 4GB memory, and 160GB hard drive
- The server must pass the tests in the HMCP Certification Tool; see [Step 1: Run the HMCP Certification Tool](#) on page 7.

IMPORTANT:

- Make sure the server has the recommended Windows Service Pack and/or updates.
- The server must already be a member of the Active Directory Domain.

About HMCP

HMCP stands for *Host Media Control Processing*, a virtual component that uses an Intel CPU to provide the following functions:

Process VoIP media stream

- Encode, decode, and transcode voice stream
- Detect and generate tone for IP devices
- Play music when a device is on hold
- Process IP paging

Play and record voice files

- Announce system and queue phrases
- Process auto attendant
- Process voice mail



- Call recording

Provide conferencing resources

- Barge-in/silent monitor/coaching
- Station conference and MeetMe conference

For a full explanation of HMCP and the roles it plays in the MAXCS All Software Solution, review the training presentation “What is HMCP?” in the AltiGen Communications Knowledge Base.

Preparation

We recommend that you take these steps before you begin the installation process:

- Have the System key and software license keys available, and make sure you have your login information for the Partner portal.
- **Make sure that the server is a member of the Active Directory Domain.**

Quick Start

The first time you deploy this Softswitch version of MaxCS, we advise you to go step-by-step through this entire guide, starting with the section [Installation](#) on the next page.

For subsequent installations, however, here is a brief summary.

1. Install and run HMCP Tool

On the CD, run **Setup** (right-click and choose Run as Admin) in the *..\Server Application \ HMCP Certification Tool* folder. Restart. In Windows, choose **Start > All Programs > AltiGen HMCP Certification Tool**. Make sure *All In One* is selected, click **Start**. Write down maximum values. **Exit**.

2. Install MAXCS

On the root directory of the CD, run **Setup**. Choose **Softswitch System Installation**. Choose **Softswitch** and **HMCP**. Accept defaults. Click **Register Later**. Accept defaults, click **Install**. Install KEYLOK. Enter the country, area code, and extension length. **Restart**.

3. Add System Key

In MaxAdmin: **License > License Information. Registration**. Check *Use Soft System Key*. Enter the system key (UPPERCASE). Click **Add License**. Click **Online Register**.

4. Register License

In the browser, click **Proceed to Online Registration**. Login. Add more licenses if needed. Click **Continue**. Accept Assurance & Warranty Agreement. Enter contact info, click **Continue**. **Download**.

5. Load License

In MaxAdmin License Info page, click **Load**, select the EXCTL file. Close. Restart switching (**Start > MaxCommunication Server > Utilities**).

6. Assign HMCP Resources

In MaxAdmin: double-click **HMCP** under *Boards*. Click **Board Configuration**. Enter values; do not exceed maximums from step 1. Click **Apply**. Restart.



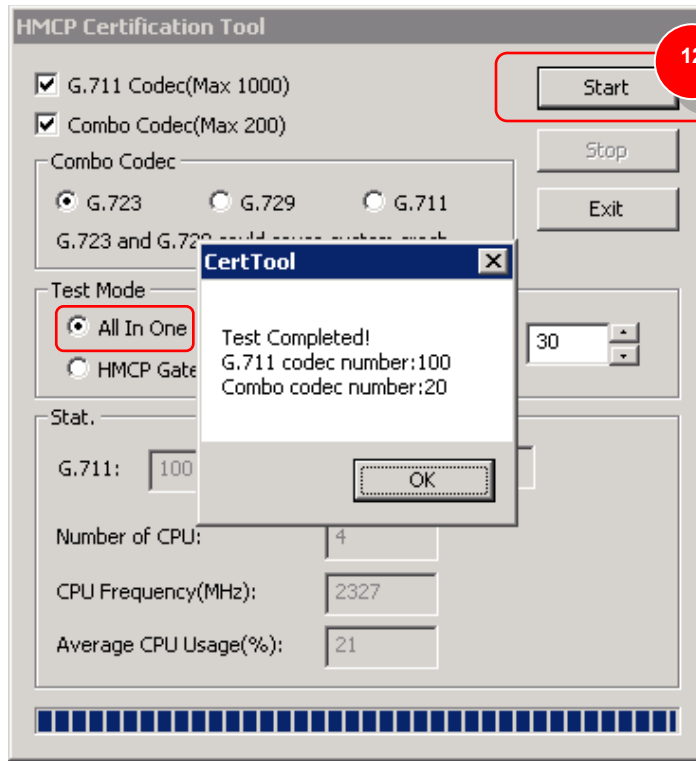
Installation

This section provides detailed instructions for installing MAXCS ACM Softswitch release 7.0 Update 1. We strongly recommend that you review the MAXCS Softswitch training presentation “Installation and Configuration” in the AltiGen Communications Knowledge Base before you begin your first MAXCS Softswitch deployment.

Step 1: Run the HMCP Certification Tool

Before you install MAXCS, you will install and run the HMCP Certification Tool.

1. Log into the server as a user with administrative privileges.
2. Insert the MAXCS ACM Softswitch CD into the drive of the server.
3. On the MAXCS ACM Softswitch CD, navigate to the *Server Application* folder and open the subfolder *HMCP Certification Tool*.
4. In the *HMCP Certification Tool* folder, right-click *Setup*. Choose *Run as Administrator*. The installation wizard starts.
5. On the Welcome panel, click **Next**.
6. In the next panel, enter a user name and organization, and then click **Next**.
7. In the next panel, accept the default folder for the installation, and then click **Next**.
8. In the next panel, click **Install**.
9. After the files have been installed, click **Finish**.
10. The server must be restarted; click **Yes**.
11. After the system restarts, in Windows, choose **Start > All Programs > AltiGen HMCP Certification Tool**.
12. When the tool opens, confirm that the *Test Mode* is set to **All In One**. Leave the *CPU Threshold* value at 30%. Click **Start**.



13. After the tool finishes its assessment of your system, it shows the results. In the example (above), the results indicate that a combined total of up to 120 codecs can be used; up to 100 G.711 and up to 20 Combo codecs. These values are the maximum quantities you should consider. If you exceed these values, voice quality may start to degrade.

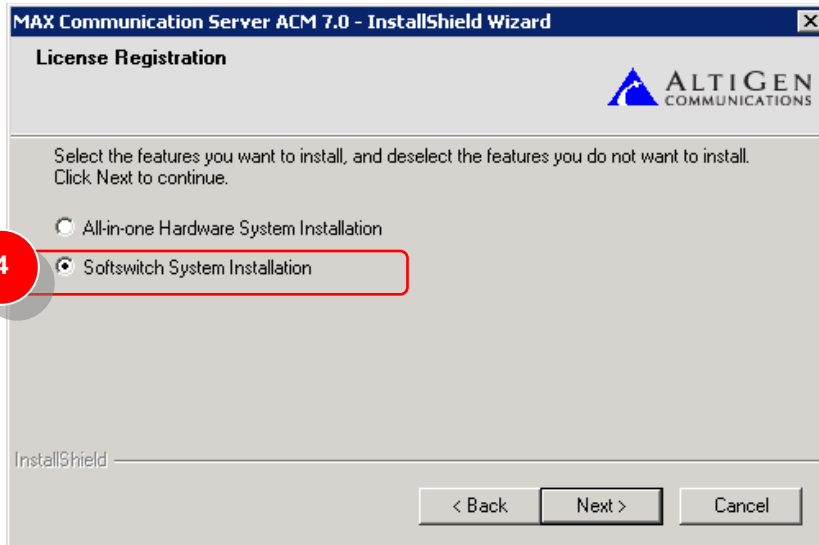
Write down these values; you will need them later, during the steps on page 12.

14. Click **OK** to close the results window. Click **Exit** to close the tool.

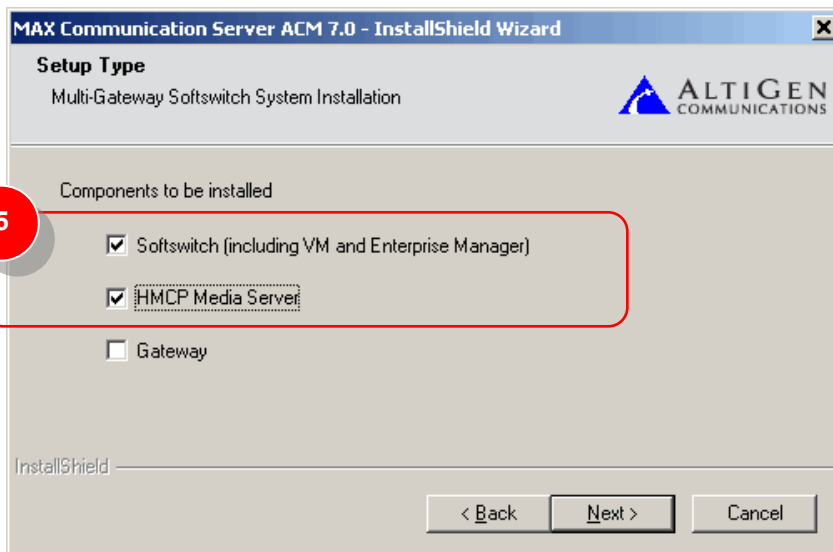
Step 2: Install MAXCS

Next, you will run the MAXCS installation program.

1. On the MAXCS ACM Softswitch CD, switch back to the top-level directory and double-click *Setup*.
2. A warning informs you that you need Domain Admin rights in order to run Exchange Integration Services. Click **OK**.
3. Click **Next** on the Welcome panel.
4. In the Setup Type panel, select **Softswitch System Installation**. Click **Next**.



5. On the next panel, select only the first two options, **Softswitch (including VM and Enterprise Manager)** and **HMCP Media Server**. Click **Next**.



6. The next few panels prompt you to accept the License Agreement, enter your user name and company, specify a password, and choose a folder for the installation. Provide the requested information and click **Next** in each panel.
7. When you are prompted about the registration file, choose **Register Later**.
8. When prompted, accept the default locations for the CDR database and the PostOffice.
9. In the last panel, click **Install**.



10. If you are prompted to do so, install the software for KEYLOK, to support the soft system key: click **Install** and complete that installation process.
11. A warning indicates that you have not entered a system key. You will do this later; click **OK**.
12. If you see a security alert about installing a driver, click **Install this driver software anyway**. This message only applies to systems with a Triton Board driver on a 64-bit OS.
13. When prompted, specify the country, the local area code for this server, and the number of digits you want for phone extensions. Click **OK**.

Country
U.S.A. & Canada

System Home Area Code
408

Extension
Extension Length 3

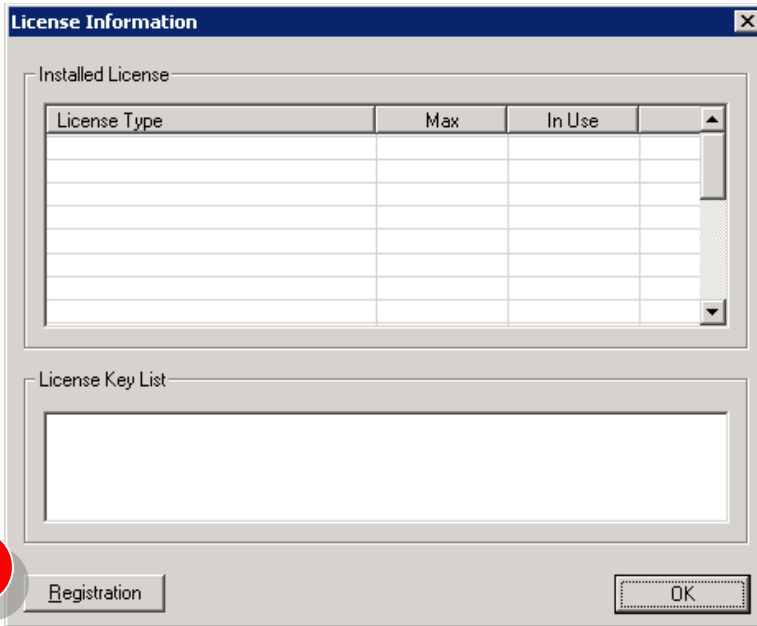
OK

14. A window shows you the password; click **OK**.
15. You are reminded to upgrade other components, click **OK**.
16. When you are prompted whether to restart the system, select **Yes, I want to restart my computer now**, and then click **Finish**. The server reboots.

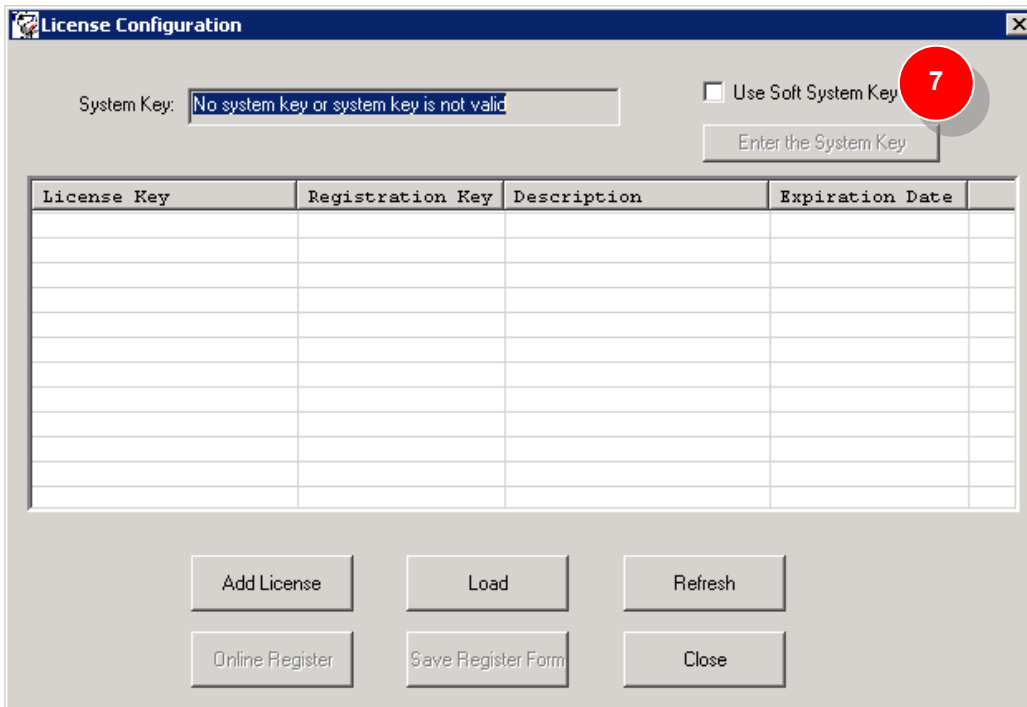
Step 3: Add the System Key

Next, you will add the client's System Key to MaxAdministrator.

1. In Windows, click **Start > All Programs > MaxCommunication Server ACM > MaxAdministrator 7.0 Update 1**.
2. In MaxAdministrator, choose the server.
3. When you are reminded that no system key has been provided, click **OK**.
4. Click the **Login** button and enter your password.
5. On the menu bar, choose **License > License Information**.
6. Click **Registration**.



7. In the License Configuration panel, check the box *Use Soft System Key*.
8. Click **Enter the System Key**.





9. Enter the System Key, which was provided by AltiGen Communications. This string usually begins with the prefix "SS." **You must enter this key in uppercase letters.** Click **OK**.
10. If you do not see the string in the field, click **Refresh**. The key will now appear in the System Key field.

Step 4: Register Licenses

Next, you will upload the license file(s) for this client.

1. In the License Configuration panel, click **Add License**.
2. Enter the **Softswitch Combo Base License** number and any other license numbers that you want to add.
3. If you have any Internet Explorer browsers windows open, close them at this point, and then click **Online Register**.
4. A new browser window opens. Click **Proceed to Online Registration**.
5. Log into the Partner site. The *Assurance and Warranty* page opens.
6. On the first page, verify that the system configuration is correct. You can add more licenses here if you want to. Otherwise, click **Continue**.
7. On the next page, check **I have read and agree with the terms** to accept the **Assurance & warranty Agreement**, then click either **Continue With Price** or **Continue Without Price**.
8. Complete the contact information on the next page, and then click **Continue**.
9. View the *Assurance & Warranty Summary*, and then click **Continue Registration**.
10. On the final page, click **Download License Activation File** and save the EXCTL file somewhere on the server; you will load this file in step 13.
11. Close the web browser.
12. Return to the **License Configuration** window in MaxAdministrator. Click **Load**.
13. Locate and load the EXCTL file that you downloaded in step 10.
14. The Softswitch Combo Base License should disappear, to be replaced by its component licenses.
15. Close the License Configuration window. Close the License Information window.
16. The licenses are now loaded, however the virtual boards do not appear because the license files were not in place when switching was started. To force these boards to appear, restart switching. (Use Windows **Start > All Programs > MaxCommunication Server ACM > Utilities > Start or Stop All AltiGen Services**.)

Step 5: Configure HMCP Resources

Next, you will configure SIP resources and assign voice resources to the HMCP board.

Because increasing the number of codec resources may temporarily affect system performance, these changes are best made at a time of low system usage.

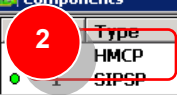
1. In MaxAdministrator, in the Boards pane, double-click **SIPSP**.

Components		
ID	Type	Physical ID
0	HMCP	0
1	SIPSP	0



2. Click **Board Configuration**.
3. Assign the SIP Extension channels and SIP Tie-Trunks as needed, and click **OK**.
4. In the Boards pane, double-click **HMCP**.

Components		
ID	Type	Physical ID
0	HMCP	0
1	SIPSP	0



5. Click **Board Configuration**.
6. Assign the desired numbers for the G.711 and Combo voice processing resources.

Note: Do not exceed the maximum numbers provided by the HMCP Certification Tool (from page 8).

Component Configuration-HMCP-0@GW00			
HMCP Resources			
	Licensed	Total Assigned	Assigned to This Component
Voice Processing Resource			
G.711 only:		0	100
G.711/G.723/G.729	15	0	15



7. Click **Apply**.
8. Reboot the system so that the changes can take effect.

AltiGen Technical Support

AltiGen provides technical support to Authorized AltiGen Partners and distributors only. End user customers, please contact your Authorized AltiGen Partner for technical support.

Authorized AltiGen Partners and distributors may contact AltiGen technical support by the following methods:

- You may request technical support on AltiGen's Partner web site, at <https://partner.altigen.com>. Open a case on this site; a Technical Support representative will respond within one business day.
- Call 888-ALTIGEN, option 5, or 408-597-9000, option 5, and follow the prompts. Your call will be answered by one of AltiGen's Technical Support Representatives or routed to the Technical Support Message Center if no one is available to answer your call.

Technical support hours are 5:00 a.m. to 5:00 p.m., PT, Monday through Friday, except holidays.



If all representatives are busy, your call will be returned in the order it was received, within four hours under normal circumstances. Outside AltiGen business hours, only urgent calls will be returned on the same day (within one hour). Non-urgent calls will be returned on the next business day.

Please be ready to supply the following information:

- Partner ID
- AltiGen Certified Engineer ID
- Product serial number
- AltiWare or MAXCS version number
- Number and types of boards in the system
- Server model
- The telephone number where you can be reached