

ACM Redundancy

5.0A provides a system redundancy feature. Two systems, primary and secondary, need to be setup and connected through a Dataprobe A\B switch box. Generally, the primary server is in control of all operations, while the secondary server keeps a connection with the primary server. When the primary server goes down, the secondary server should take over control. The primary and secondary must be located in the same LAN.

In a redundancy system, a keep alive service works as an important role, which will be responsible for checking primary server status and asking secondary server to take over when primary server is down. In the AltiWare system, AltiBackup is enhanced to provide the keep alive service.

You can access **Redundancy Configuration** by selecting **Redundancy...** from the **System Management** menu.

Figure 1. Redundancy Configuration

AltiGen recommends that the two systems, primary and secondary, be EXACTLY identical. All boards, and physical ID, must be in the same order for redundancy to work.

Important Notes

- Forwarding voicemail to another mailbox will not work with redundant systems.

- Gatekeeper is not supported on IP phones.

Installation

Important: It is recommended that the installation of the redundancy feature be performed after business hours. Also, after redundancy installation and setup, it is important to test the redundancy feature using the Manual Switchover feature (refer to “Manual Switch Over” on page 22-7) to make sure the primary and backup systems are working properly.

Initial Device Setup

1. Prepare two computers, synchronize their time.
2. Plug in system key to primary system before software installation. A system key on the secondary system is not necessary.
3. At the Primary system, install AltiContact Manager 5.0A software and boards. The redundancy feature is disabled by default.
4. Register the Redundancy License through ACM Admin on the primary system.
5. At the Secondary system, install AltiContact Manager 5.0A software and boards. The boards type and physical ID should mirror from the boards installed on the primary system.
6. Set up the Dataprobe K-AB system. Make sure the IP address of the primary, secondary and K-AB system are static.
7. Connect T1/PRI trunk of primary system to A bridge of K-AB K16-2RJ8 card.
8. Connect T1/PRI trunk of secondary system to B bridge of K-AB K16-2RJ8 card.
9. Connect analog trunk of primary system to A bridge of K-AB K16-T50-L-R card.
10. Connect analog trunk of secondary system to B bridge of K-AB K16-T50-L-R card
11. Connect analog extension of primary system to A bridge of K-AB K16-T50-L-R card.
12. Connect analog extension of secondary system to B bridge of K-AB K16-T50-L-R card.

13. Connect patch panel to A bridge of K-AB switch with a standard 25-pair telco cable for analog extensions and analog trunks.

Configuration Procedures

At the Primary Server:

1. Configure primary system boards, reboot if necessary.
2. Set configurations to primary system, such as extensions, trunks, VoIP dialing tables, etc.
3. Go to the **Redundancy Configuration** window (select **Redundancy** from the System Management Menu), and:
 - Check the **Enable Redundancy** checkbox
 - Enter IP address for the **Primary Address**, **Secondary Address**, and **AB-Switch Address**
 - Enter a **Redundancy Key** (your password for redundancy; needs to be the same for Primary and Secondary systems).

The screenshot shows the 'Redundancy' configuration window. The 'Enable Redundancy' checkbox is checked. Under 'System Role', the 'Primary' radio button is selected. The 'Primary Address' is set to 10 . 10 . 10 . 151, the 'Secondary Address' is 10 . 10 . 10 . 12, and the 'AB-Switch Address' is 10 . 10 . 1 . 140. The 'Redundancy Key' field contains masked characters (asterisks). At the bottom, the checkbox 'Automatically assume control when other system is not available' is unchecked. On the right side, there are buttons for 'Status', 'Apply', 'OK', and 'Cancel'.

Figure 2. Redundancy Configuration - Primary System

Click **OK** or **Apply** when finished.

At the Secondary Server:

4. Power on secondary system, configure boards, reboot if necessary.

5. Don't change any other configurations. Go to the **Redundancy Configuration** window (select **Redundancy** from the System Management Menu), and:
 - Select **System Role** as **Secondary**
 - Check the **Enable Redundancy** checkbox
 - Enter IP address for the **Primary Address**, **Secondary Address**, and **AB-Switch Address**
 - Enter a **Redundancy Key** (your password for redundancy; needs to be the same for Primary and Secondary systems).

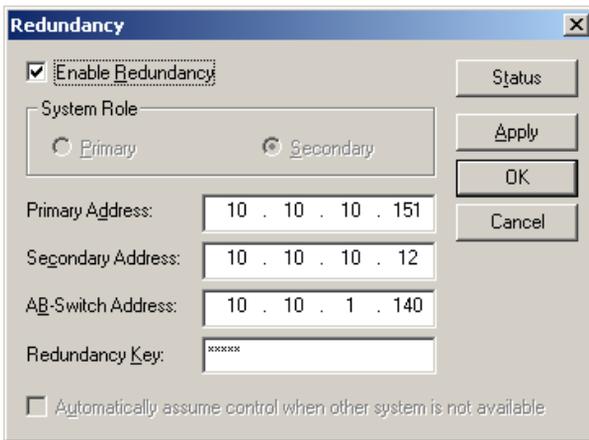


Figure 3. Redundancy Configuration - Secondary System

Click **OK** or **Apply** when finished.

Redundancy Initialization

Run **Redundancy Administration** (click the **Status** button in the **Redundancy Configuration** window) from either the Primary or Secondary system, making sure all services on both system are running. The secondary system will replicate primary system's configuration, voice mail and other files, which will take from several minutes to an hour, depending on amount of extensions and their voice mail files.

Upon completion, the secondary system replication status should show “Destination: Updated.”

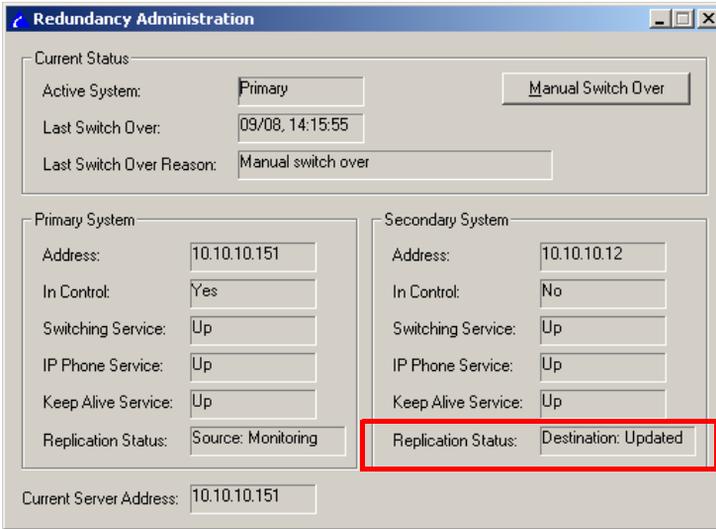
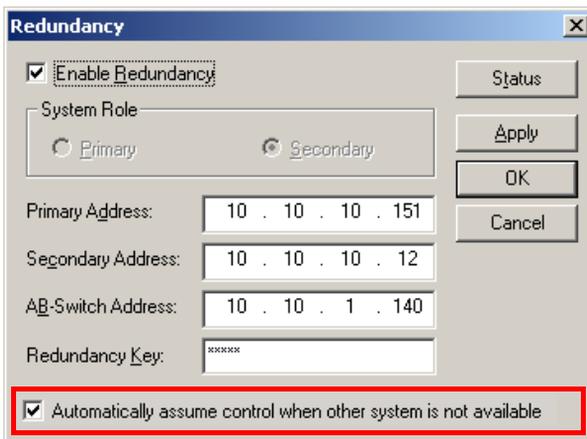


Figure 4. Redundancy Administration - Primary or Secondary System

- Go back to the Secondary System’s **Redundancy Configuration** window and enable the “**Automatically assume control when other system is not available**” checkbox.



Adding Redundancy to an Existing 5.0A Server

To add redundancy to an existing 5.0A server, follow the procedures for initial device setup (“Initial Device Setup” on page 22-2) and setting up a secondary server (“At the Secondary Server:” on page 22-3), then configure redundancy to both primary and secondary system.

Maintenance

Bootup/Shut Down Procedures

If it’s necessary to shutdown both systems, it’s better to disable their “Automatic switch over” feature, then it doesn’t matter about the sequence of both systems shutdown and bootup.

Board/Hardware Level Configuration

All boards of secondary system must have the same physical ID as those of primary system.

Board configuration is not replicated to secondary system, so the boards need to be configured on both systems. It doesn’t matter which server is configured first.

In ACM Admin, dialog boxes which are invoked from the following locations are for board level configuration:

- **Boards View**
- **Line Properties** in the **General** page of **Agent Configuration**
- **Trunk Properties** in the **General** page of **Trunk Configuration**

Some board level configuration changes require rebooting the AltiServ system. For example, changing a T1 board to PRI, or changing a VoIP board from 12 ports to 30 ports requires rebooting the system.

CT-BUS Clock Master

AltiGen recommended that you always use “Auto” option for the CT-Bus clock setting.

Configuration in inactive system is not allowed

Either system can be in active or inactive status. General configuration (except board configuration) upon the inactive system is not allowed. In ACMAAdmin, if the server is inactive, we will see most menus are disabled, only Redundancy dialog can be shown, and board configurations can be invoked.

30 Day Limit for Secondary System

As part of the redundancy feature, the secondary system needs to be connected to the primary system. If the secondary system cannot connect to the primary system within 30 days, the secondary system will lose functionality.

Manual Switch Over

In Redundancy Administration, a **Manual Switch Over** button allows a user to switch control from the active server to the inactive one. This button is enabled only when all redundancy related services of both systems are running and inactive server has finished replicating active server's files (the replication status is “synchronizing”).

Redundancy Administration

In the Redundancy dialog box, click the **Status** button to view the **Redundancy Administration** window.

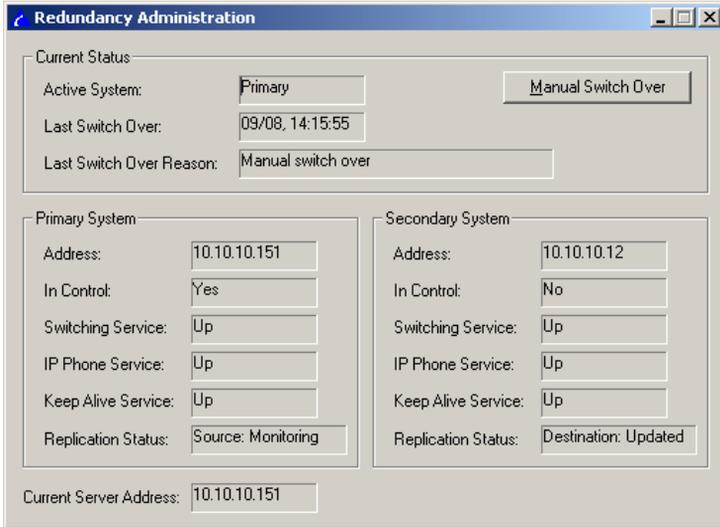


Figure 5. Redundancy Administration

The **Redundancy Administration** window displays the **Current Status** of redundancy, including the **Active System**, **Last Switch Over** time, and **Last Switch Over Reason**. Information for the **Primary System** and **Secondary System** is also displayed. Use the **Manual Switch Over** button to switch over the active system to its redundant system.

External Logger Service

An external logger service **MUST** be used for both primary and secondary systems. Internal logger service is still available for local server only.

Limitations

The following limitations apply when the backup system is in control:

- Alti-MSCRM will not work when the primary system goes down.
- The following applications and tools are not supported by the secondary server after it takes control:

- Third-party CT applications
 - Third-party IP phones
 - Call Router
 - CRM
 - AltiReach
 - SuperQ Manager
 - TAPI
 - AltiWeb
- VoIP hop on or hop off fails when secondary system is in control.
 - AltiView/AltiAgent/AltiSupervisor/AltiConsole client will not switch automatically when secondary system is in control.
 - DINA Manager is not supported when secondary system is in control.
 - When an IP phone logs into a workgroup for the first time, if the system switches to a secondary system, the IP phone must log back into the workgroup.
 - The IP phone will have a new login time every time the system switches over.
 - If changing board configuration on the primary server, you must break redundancy and make the same changes in the secondary system to match the primary server, then enable redundancy on the secondary system again.
 - When rebooting a secondary system while it's in control, the secondary system needs 5 minutes to be in control.
 - When an IP phone is registered on a secondary server after primary system goes down, it will not register on the primary server after it is in control.
 - Two network cards are not supported.

System Switchover Call Notification to Extension/Group/Outside Number

When a system switches over through the Redundancy feature or when the data probe is down, the system can be configured to make calls to pre-configured extensions, groups, or outside numbers.

To enable this option, go to the **Notification** page of **Extension Configuration**, select the extension or group number, and enable the **When Redundancy Switch Over to This System** check box.

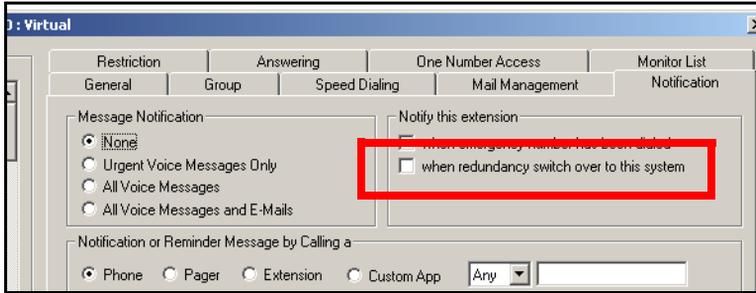


Figure 6. System Switchover Notification, Extension Configuration