The "Care & Feeding" of Your INTUITY™ CONVERSANT ® System

INTUITY CONVERSANT Version 6.0/6.0 Update 1

INTUITY CONVERSANT, like any general-purpose computer, requires some important routine maintenance and upkeep. While INTUITY CONVERSANT is in fact a Voice Response Unit (VRU), its open architecture and flexibility makes it more like a minicomputer than a PBX. It is through the design and the creation of scripts, data interface processes (DIPs), and applications that the magic of INTUITY CONVERSANT begins to take form and positively affect your business operations.

Therefore, one of the most important responsibilities for any INTUITY CONVERSANT administrator is to know your system and develop a plan for its "Care and Feeding". Following this plan will help you *maximize* the effectiveness of the capabilities of the INTUITY CONVERSANT system and *minimize* the impact on your company in the event of an unexpected failure.

Know Your System

Whether your INTUITY CONVERSANT application was developed by Lucent Technologies or through an independent software vendor (ISV), it is important for you to know how that application operates and the impact it has on your daily business operations.

For example, you should be able to answer these questions:

1. How should the application perform under all conditions (for example, during business hours, out of hours, if the host is down, if shared resources such as speech recognition are busy)?
2. If I need to make test calls, what are the telephone numbers to call?
3. How can I verify that the application is functioning properly (for example, are sample account numbers available)?
4. If the system fails, how do I restart the application?
5. What are the points at which the INTUITY CONVERSANT system connects to peripherals (in other words, what is the host interface, and the LAN and T1 addresses, etc.)?
6. If service from my remote support organization is required, what is the telephone number for my remote support modem?
7. What are the passwords for my system?
8. How do I gain quick access to my system software?
9. Do I have a complete, incremental, and comparison backup of my system?
10. If I have applications that are supported by vendors other than Lucent Technologies, how and when do I contact the developers of those applications?
11. If the INTUITY CONVERSANT system fails and cannot be restored quickly, what is my plan for routing calls to an alternate resource?

In addition to addressing each of the questions listed above, every INTUITY CONVERSANT administrator is strongly encouraged to participate in the following "Care and Feeding" activities. These simple guidelines will help you to develop a Personal Recovery Plan. This plan can have significant impact on your ability to prevent, detect, and recover from possible system failures. Our recommendations for INTUITY CONVERSANT "Care and Feeding" are as follows:

Daily "Care and Feeding":

- Make a number of test calls into your system to ensure that it is functioning as it should.
- Check the status of the port cards in your system.
- Visually check the status lights on the front of your INTUITY CONVERSANT system .
- Check the status of your host and/or LAN connection.
- Display all messages and look for critical or major errors.

Monthly "Care and Feeding":

- Perform a Script Builder backup of all critical applications.
- Clean the heads on your cartridge tape drive.
- Clean the fan filters.
- Visually check the environment around your INTUITY CONVERSANT system. Look for loose cables, improper ventilation, or other conditions that may adversely affect your system.
- Back up any applications that are not backed up as a part of the Script Builder backup procedure (for example, custom reports or other custom software, such as DIPs, APIs, etc.).
- Back up the system.

Biannual "Care and Feeding":

If your MAP/100 has battery backup, check the battery and replace it if necessary.

Completing Your Personal Recovery Plan:

To complete your Personal Recovery Plan, take the following precautionary steps to help reduce the time it may take to restore your system to service:

1. Always maintain at least one and preferably two current backups of your system. Because magnetic media is subject to many types of failures that may not be detected until it is too late, we highly recommended that you have a minimum of *two* complete backups.
2. Different applications may have different backup and recovery schemes. Make certain you understand how an application gets backed up and exactly what information is stored on the backup.
3. If it becomes necessary to recover an application, make certain you know how to set up that application, including all the values and parameters that you must re-enter if the application requires reloading.
4. Maintain and verify a list of all software associated with your INTUITY CONVERSANT system. Make certain that all software is readily accessible and stored in a safe and protected location.
5. Maintain a current copy of your host "gen" (if applicable).
6. Know the IP address of your NIC (if applicable).
7. Maintain a current list of the hardware (circuit cards, peripherals, etc.) installed on your INTUITY CONVERSANT system. Include a description of how this hardware is used and the interrupts that are assigned.
8. Maintain a list of any additional CRON jobs that are run from UnixWare that are not a part of the standard UnixWare operating system.
9. Maintain a current list of your disk partitioning information.
10. Maintain a printed copy of your DNIS table.
11. Establish a list of telephone numbers connected to each channel.

The Technical Service Organization

Should you need to call the Technical Service Organization (TSO) for assistance, have the following information available to speed up the handling of your call:

1. Your Customer Identification Number (CIN)
2. Your Installation Location (IL)
3. The dial-up number for your modem
4. All known logins for your system
5. The passwords (including root) for your system

The previous sections suggested that you maintain or acquire certain relevant pieces of information about your INTUITY CONVERSANT system. The following tables provide you with directions on how to obtain that "Care and Feeding" information.

"Care and Feeding" Activity	How do I do it?	How long does it take?	How often should I do it?
Check status of cards	At the UnixWare® prompt, enter: **display card all | pg** Check that the status of all circuit cards is INSERV.	Less than 5 minutes	Daily
Check status lights	See "Visual Inspection" included with this document.	Less than 5 minutes	Daily
Check status of IBM host	At the UnixWare prompt, enter: **hstatus all** LUs should be logged in and not stuck in recovery or logged out.	Less than 5 minutes	Daily
Check the status of the LAN	Attempt to **rlogin** to another host on the LAN.	Less than 5 minutes	Daily
Check system messages	At the UnixWare prompt, enter: **display message priority alarms start *dd/mm*** (Where *dd/mm* is yesterday's date). See Chapter 1, "Getting Started," of *INTUITY CONVERSANT System Version 6.0 Alarm and Log Messages*, 585-310-183.	Less than 10 minutes	Daily
Application backups	See "Backing Up an Application" in Chapter 10, "Application Administration," of *INTUITY CONVERSANT System Version 6.0 Application Development with Script Builder*, 585-310-760. For other software (e.g., custom DIPs) follow instructions from the vendor.	Application specific	Application specific
Clean cartridge tape drive	See "Cleaning the Cartridge Tape Drive" included with this document.	15 minutes	Every month
Clean the fan filters	See "Cleaning the Filter" in Chapter 7, "Replacing Other Components," of the maintenance book for your platform.	15 minutes	Every month
System backups	See "Backing Up the System" in Chapter 3, "Common System Procedures," of the maintenance book for your platform.	3 to 4 hours	Every month
Reboot your system	See "Rebooting the UnixWare System" in Chapter 3, "Common System Procedures," of the maintenance book for your platform	15 minutes	Every month in conjunction with the system backup
Application parameters	During initial installation of the application, record all data that was entered as a part of the installation procedure.	Application specific	Once during the installation
Obtaining a list of installed software	From the UnixWare prompt, enter: **displaypkg | lp**	Less than 5 minutes	Once when the system is installed, and whenever software has been added or removed
Inventory	At the time of installation, create an inventory list of the tapes and floppies delivered with your system and verify this list against the information obtained in the previous activity.	Less than a half of an hour	Once when the system is installed, and whenever software has been added or removed

"Care and Feeding" Activity	How do I do it?	How long does it take?	How often should I do it?
Host gen	A host gen can be obtained from the system administrator for your main frame computer. Note that a gen may not remain static and a current copy should be acquired whenever the host parameters are changed.	Less than 5 minutes	Once when the host link is first made, and every time the parameters change
IP address	From the UnixWare prompt, enter: **lp /etc/hosts**	Less than 5 minutes	Once when the LAN is installed, and when new machines are added to the LAN
List the hardware on the INTUITY CONVERSANT	From the UnixWare prompt, enter: **show_config* | lp** ***** Update your configuration data files using 'configure' when modifying hardware.	Less than 5 minutes	Once when the system is installed, and whenever additional hardware is added
List of the interrupts of each card	Use the UnixWare print command, **lp /etc/conf/cf.d/sdevices**	Less than 5 minutes	Once when the system is installed, and whenever additional cards are added
List of CRON jobs	Use the UnixWare print command **crontab -l | lp**	Less than 5 minutes	Once when the system is installed, and whenever changes are made
Disk partitioning information	From the UnixWare prompt, enter: **df -g | lp**	Less than 5 minutes	Once when the system is installed, and whenever changes are made
List DNIS service table	From the UnixWare prompt, enter: **display dnis | lp**	Less than 5 minutes	Once when the system is installed, and whenever changes are made
List channel assignments	From the UnixWare prompt, enter: **display card all | lp**	Less than 5 minutes	Once after the system is ready for live calls, and whenever changes are made
List T/R and port assignments	Contact your PBX administrator.	About 30 minutes	Once when the system is installed, and whenever changes are made

Comcode 108169673
585-310-542

Lucent Technologies
Bell Labs Innovations

Technical Service Center CONVERSANT Team
ATTN: CONVERSANT CONTROL TEAM
8300 East Maplewood
Denver CO 80111

PLEASE HELP US KEEP YOUR RECORDS CURRENT. *COMPLETE* THIS FORM AND FAX TO LUCENT TECHNOLOGIES ENGINEERING SUPPORT.

FAX TO: 303.488.6300

CUSTOMER NAME: _____

CUSTOMER ADDRESS: _____

CITY: _____ **STATE:** _____

ZIP CODE:_____ **IL:**_____

CUSTOMER CONTACT: _____

VOICE NUMBER: _____ **FAX NUMBER:**_____

SITE PHONE NUMBER: _____

EXISTING SYSTEM MODEM NUMBER: _____

EXISTING SYSTEM LOGIN: _____

OUT-OF-HOURS CONTACT: _____

OUT-OF-HOURS REACH NUMBER: _____

Visual Inspection

The visual inspection helps you to identify any obvious equipment problems before you perform more exhaustive tests. Perform a visual inspection of system equipment at least once a month unless local guidelines, such as central office guidelines, warrant a different schedule.

⚠ CAUTION:
This is only a VISUAL inspection. Do not physically touch anything in the unit unless you observe proper ESD precautions and the unit is gracefully powered down. Failure to power down before handling equipment can cause irreparable equipment damage.

To perform a visual of inspection:

1. Verify that the input power connections are secure.
2. Verify that the rear circuit breaker and power switch on the unit are in the ON position.
3. Check the status of the visual indicators listed in Table 1 through Table 5 for each of the supported platform. Notice that the second column of tables list the color of the indicator and the number of indicator lights on the unit.

   If any of the indicators are not in the proper state, see Table 6 through Table 10 for the recommended action.

⚠ CAUTION:
Make sure the unit has been gracefully powered down before performing any replacement procedures such as reseating cables. Failure to power down before handling equipment can cause irreparable equipment damage. See "Shutting Down the Operating System" in Chapter 3, "Common System Procedures," of the maintenance book for your platform.

4. Check the following cables to make sure that the connectors are not damaged or loose, and replace any damaged cables or reinsert loose connectors:
   - All external cables
   - TDM cable spanning slots inside the card cage
   - All connectors on the CPU circuit card
   - All connectors on the hard disk controller card
   - The connector to the cartridge tape drive
   - Both signal processor to companion card cables (if so equipped)
   - All connections (power, control, and data) to all disk bay devices

5. Check the cooling fans by putting your hand behind the fan locations to feel the air circulating.
6. Check to make sure all circuit cards are properly seated in the backplane and held in place with a screw.
7. Check for proper placement of circuit cards. See the hardware installation book for the particular platform for information on proper placement of circuit cards.

   The disk activity, floppy disk drive, and hard disk drive lights are on or flashing while the disks are accessed. This is normal. When there is no disk activity, the lights are off.

Table 1. Normal State of the MAP/100's Visual Indicators

Indicator Description	Color (number of indicators)	Indicator Location	Normal State
Main power available	Green (1)	Front of unit	ON
Battery status - online	Red (1)	Front of unit (on AC units)	OFF
Battery status - low	Yellow (1)	Front of unit (on AC units)	OFF (will be ON when unit is powered by battery)
Battery status - charging	Yellow (1)	Front of unit (on AC units)	OFF
Battery status - charge fault	Red (1)	Front of unit (on AC units)	OFF
Fan status	Green (6)	Front of unit	ON
Disk activity	Green (1)	Front of unit	ON, OFF, or FLASH
Floppy Drive	Red or amber (1)	On the floppy drive	ON, OFF, or FLASH
Hard Drive	Amber (1)	On the hard disk drive	ON, OFF, or FLASH

Table 2. Normal State of the MAP/100C's Visual Indicators

Indicator Description	Color (number of indicators)	Indicator Location	Normal State
Fan status	Green (6)	Front of unit	ON
Floppy drive	Red or Amber (1)	On the floppy drive	ON, OFF, or FLASH
Hard Drive	Amber (1)	On the hard disk drive	ON, OFF, or FLASH
Power	Green (1)	Front of the unit (on the user interface panel)	ON

Table 3. Normal State of the MAP/40P's Visual Indicators

Indicator Description	Color (number of indicators)	Indicator Location	Normal State
Power-On indicator	Green (1)	Center of front panel	ON
Disk activity indicator	Yellow (1)	Center of front panel	ON, OFF, or FLASH

Table 4. Normal State of the MAP/40's Visual Indicators

Indicator Description	Color (number of indicators)	Indicator Location	Normal State
Power-On indicator	Green (1)	Center control panel	ON
INT Drive indicator	Green (1)	Center control panel	ON, OFF, or FLASH

Table 5. Normal State of the MAP/5P's Visual Indicators

Indicator Description	Color (number of indicators)	Indicator Location	Normal State
Disk activity indicator	Green (1)	Top right of front panel (first)	ON, OFF or FLASH
Speed indicator	Green (1)	Top right of front panel (second)	ON
Power indicator	Green(1)	Top right of front panel (third)	ON

Table 6. MAP/100 Visual Inspection Fault Isolation

Indicator Not in Normal State	Recommended Corrective Action
Main power available	1. Make sure the power cord is plugged into an active power outlet and the rear circuit breaker and power switch are turned on. 2. Make sure the power supply and battery module (PS&BM) is completely installed in the unit with all 1/4-turn fasteners secured. There is a "deadman" switch on this assembly. 3. Replace the PS&BM using the replacement procedures in Chapter 7, "Replacing Other Components," of *INTUITY CONVERSANT System Version 6.0 MAP/100 Maintenance*, 585-310-179. 4. Escalate to the next level of support.
Floppy disk drive	1. Inspect the floppy disk drive as described earlier in this chapter. 2. If the problem persists, escalate to the next level of support.
Hard disk drive indicator or disk activity indicator	Escalate to the next level of support.
Battery status indicators	If you suspect a fault with any of the battery status indicators, escalate to the next level of support.
Fan status indicators	1. Check connectors on the suspect fan (Fan 1, 2, 3, 4, or rear fan). 2. Replace the fan using the procedures in Chapter 7, "Replacing Other Components," of *INTUITY CONVERSANT System Version 6.0 MAP/100 Maintenance*, 585-310-179. (The power supply fan is not serviceable.) 3. Escalate to the next level of support.

Table 7. MAP/100C Visual Inspection Fault Isolation

Indicator Not in Normal State	Recommended Corrective Action
Power on	Make sure the input power connections are secure and power is turned on.
Floppy disk drive	1. Inspect the floppy disk drive as described earlier in this chapter. 2. If the problem persists, escalate to the next level of support.
Hard disk drive indicator or disk activity indicator	Escalate to the next level of support.
Fan status indicators	1. Check connectors on the suspect fan (fan 1, 2, 3, 4, 5, or 6). 2. Replace the fan using the procedures Chapter 7, "Replacing Other Components," of *INTUITY CONVERSANT System Version 6.0 MAP/100C Maintenance*, 585-310-180. (The power supply fan is not serviceable.) 3. Escalate to the next level of support.

Table 8. MAP/40P Visual Inspection Fault Isolation

Indicator Not in Normal State	Recommended Corrective Action
Power on	1. Make sure the power cord is plugged into an active power outlet. 2. Check the LED on the monitor to see if it has power. 3. If the monitor has power, type **ps -ef** and observe the power on LED. 4. If no response is seen on the monitor, escalate to the next level of support.
Disk activity	1. Type **ps -ef** and observe the disk activity LED. 2. If no response is received, escalate to the next level of support.

Table 9. MAP/40 Visual Inspection Fault Isolation

Indicator Not in Normal State	Recommended Corrective Action
Power on	1. Make sure the power cord is plugged into an active power outlet. 2. Check the LED on the monitor to see if it has power. 3. If the monitor has power, type **ps -ef** and observe the INT LED. 4. If no response is seen on the monitor, escalate to the next level of support.
INT drive	1. Type **ps -ef** and observe the INT LED. 2. If no response is received, escalate to the next level of support.

Table 10. MAP/5P Visual Inspection Fault Isolation

Indicator Not in Normal State	Recommended Corrective Action
Power indicator	1. Make sure the power cord is plugged into an active power outlet. 2. Check the LED on the monitor to see if it has power. 3. If the monitor has power, type **ps -ef** and observe the LED. 4. If no response is seen on the monitor, escalate to the next level of support.
Disk activity	1. Type **ps -ef** and observe the disk activity LED. 2. If no response is received, escalate to the next level of support.

Cleaning the Cartridge Tape Drive

Clean the cartridge tape drive with a tape drive cleaning kit. These tapes are available at any retail computer outlet. Follow the instructions included with the tape drive cleaning kit.