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Toshiba Year 2000 Compatibility

Good News

Many people are asking what happens to their Toshiba telephone system when the system clock/calendar reaches the year 2000. The answer is "business as usual." The roll over of the system clock/calendar from one year to the next is handled automatically by Strata key/hybrid telephone systems and Perception PBX systems. The transition of the system's clock/calendar from 1999 to 2000 works the same as in any other year. No special handling or reprogramming is required.

The answer is the same for Stratagy Voice Processing systems, except that a simple and inexpensive software upgrade may be needed to accomplish year 2000 compatibility. Toshiba's comprehensive Century Compliance Program, ensures that Toshiba voice processing systems make a smooth transition to the next century. The details are outlined in the product sections below.

Background

The new century will bring opportunities and challenges to all of us in both the telecommunications and computer industries. Many telecommunication and computer systems record the year by storing just its last two digits, in order to save memory space. This means that, when the calendar turns past December 31, 1999, many of these systems may see the year change as 1900 instead of 2000.

This set of circumstances will have a major impact on certain Toshiba voice processing systems. As a consequence, many date sensitive functions and applications are potentially at risk if not modified. Toshiba is currently developing software changes that will allow these products to recognize "00" as the year 2000, making them century compliant.

Strata Business Telephone Systems

All current Strata DK systems and many older Strata systems are already year 2000 compatible, and are not impacted by the year 2000 century change. This includes products manufactured within the past seven years:

- ◆ Strata DK14 Release 1 and Strata DK8 Release 1
- ◆ Strata DK40 Release 1, Strata DK16e Release 1 and Strata DK16 Release 1
- Strata DK424 and Strata DK280 Releases 1, 2, and 3 (all processors)
- Strata DK24/56/96 Releases 1, 2, 3, and 4
- Strata S_e Release 2 and Strata VI_e Release 2

When the Strata system clock/calendar changes from 12-31-99 to 01-01-00, the Strata system continues to operate as usual. The clock/calendar simply rolls over from the year 1999 to 2000 to 2001, etc., just as in previous years.

Strata systems will also continue to correctly handle leap years, adding February 29th every fourth year, just as it always has. Strata system software handles this automatically. No special handling or re-programming is required.

The year is not displayed on the Strata telephone sets' LCD date/time display, so LCD displays will continue to operate unaffected by the century change. The same is true for the proprietary Strata DK Attendant Console and the Strata DK PC Attendant Console.

Station Message Detail Recording (SMDR) information will continue to operate unaffected by the century change. For example, on the first day in the year 2000 the date will show as 01-01-00 on the SMDR report. If an external call accounting machine or software package is used with the SMDR output data, the manufacturer should be consulted to determine if the information is converted to four digits for the summary reports and that the weekly reports will be correctly calculated.

ACD reporting with the Software Management Information System (SMIS) will continue to operate unaffected by the century change. For example, reports generated after 23:59 12-31-99 will change from "99" to "00". A weekly report spanning the two centuries will correctly calculate all of the duration times within the ACD activity.

SMIS, Call Center Viewer, PC Digital Telephone, PC Attendant Console, and any other PC-based Strata products handle the date and time correctly until December 31, 2019 for modern PCs. This depends on the BIOS of the PC used, therefore the PC manufacturer should also be consulted.

Stratagy Voice Processing Systems

Stratagy Voice Processing systems are not currently year 2000 compatible. However, all Stratagy Voice Processing systems can become year 2000 compliant with updated software. These new versions of Release 2 and Release 3 software will be available in the first quarter of 1998. At that time we will provide the details to update all Stratagy Voice Processing systems for year 2000 compliance.

Stratagy Voice Processing systems with previous software versions will need to be updated to accomplish year 2000 compatibility. This will involve a simple and inexpensive software upgrade that can be done anytime before the year 2000.

VP Voice Processing Systems

VP100 Voice Processing systems with release A7.1.0 and later software are year 2000 compatible. Toshiba has been shipping VP100 systems with Release 7.1 (A7.1.0 software) since August 22, 1994. See *Sales Bulletin SB30-0008* and *Technical Bulletin TB30-0016* for further details on Release 7.1.

VP200, VP300s, and V300 Voice Processing systems with release L7.1.4 and later software are year 2000 compatible. Toshiba has been shipping VP200, VP300s, and V300 systems with Release 7.1 (L7.1.4 software) since August 22, 1994. See *Sales Bulletin SB30-0008* and *Technical Bulletin TB30-0016* for further details on Release 7.1.

VP100, VP200, VP300s, and VP300 Voice Processing systems with previous software versions will need to be updated to accomplish year 2000 compatibility. This will involve a software only upgrade or, in some cases, both a hardware and software upgrade that can be done anytime before the year 2000. (Refer to the above bulletins for details.)

Perception PBX Systems

Perception I, Perception II, Perception_e, Perception_{ex}, and Perception_{exp} PBX systems are already year 2000 compatible, and are not impacted by the year 2000 century change. Like Strata, the year is not displayed on the Perception telephone set's LCD date/time display.

The proprietary Perception Attendant Console and the Perception PC Attendant Console display the year as two characters and the data is set using two characters. The year 2000 will be entered and displayed as 00. Thus, when the date changes from December 31, 1999 to January 1, 2000, the console display will change from 12-31-99 to 01-01-00.

Perception Traffic Measurement information will continue to operate unaffected by the century change. The date can be changed in the Traffic Measurement utility in addition to the Attendant Console. The format is MMDDYY and the year 2000 will be entered and displayed as 00.

Perception Station Message Detail Recording (SMDR) information will continue to operate unaffected by the century change. SMDR reports show the month and day but not the year.

Perception 4000 PBX Systems

The Perception 4000 PBX systems are not currently year 2000 compatible. A software upgrade, which is now available, will be required to change the date format for SMDR, voice mail time stamp, and ACD time stamp.

However, Perception 4000 users not using SMDR, voice mail, or ACD are unaffected by the year 2000, and already have century compliant systems. Like other Toshiba telephone systems, the year is not displayed on the Perception 4000 telephone set's LCD date/time display.

Perception 4000 systems will handle dates correctly up to the year 2052. In year 2053 and beyond, the Perception 4000 will not process date related functions correctly.

Non-compliant Systems

InTouch Voice Processing systems are not year 2000 compliant. InTouch was discontinued several years ago and no further software will be developed for these systems.

Rapid advancements in technology make it virtually impossible for either data system vendors or telecommunications vendors to stock replacement parts for older discontinued systems indefinitely or to maintain support expertise beyond a reasonable time. As new products are introduced, these resources need to shift to more current systems requirements.

Because of these factors, Toshiba recommends that any customer with an InTouch or other discontinued Toshiba system not described in this bulletin should be migrated to a new Toshiba system prior to the year 2000.

All Stratagy and VP Voice Processing systems can be upgraded to become year 2000 compatible. However, customers who do not upgrade their systems to the appropriate software version will be non-compliant with year 2000 requirements.

If your Toshiba voice processing system is non-century compliant at the year 2000 due to old software, it could lose messages and be vulnerable to a number of performance issues. For example, because non-compliant Toshiba VP100, VP200, VP300S, and VP300 Voice Processing systems do not recognize year "00" as the year 2000, messages stored before January 1, 2000 will be seen as old messages and will be automatically deleted (purged) on that day. In all Toshiba voice processing systems the Future Delivery feature and many other date related voice processing functions will not operate properly. For these reasons, upgrading is strongly recommended for these systems.

Century Compliance Verification

Year 2000 testing of all products manufactured in the last seven years has been completed.

Toshiba has confirmed that Strata key/hybrid and Perception PBX telephone systems are century compliant and there are no leap-year issues in the year 2000 and beyond. Toshiba has updated and tested all software elements that use dates and date functions in its century compliant releases of software.

Toshiba has identified all software changes that need development for the upcoming Stratagy Release 2 and Release 3 century compliant software versions. This will ensure that all current Stratagy Voice Processing systems upgraded to those versions, and all new systems produced with those versions or higher, will be year 2000 compatible.