

What is satellite technology?

Satellite technology is a specialized wireless receiver/transmitter, essentially a radio frequency repeater that is launched by a rocket and placed in orbit around the earth. Today, there are hundreds of commercial satellites being used around the world.



These satellites have many purposes and are used in a number of ways, such as weather forecasting, internet access, radio communications, television broadcasting, global positioning and wide area network communications.

How long has satellite technology been in existence?

Satellite technology has been in existence since the late 1950s. Since that time, satellites have become more powerful. Today's communication satellites have the capability to transmit and receive almost any kind of data, from the most simple to the most complex.

Why did Washington's Lottery choose wireless technology?

Washington's Lottery selected wireless (satellite and radio) networking because of its proven reliability, capability and the many future opportunities it brings to retailers statewide.

Wireless capability has demonstrated an unmatched ability to support a wide range of devices and applications. Major businesses across the globe, including the U.S. Postal Service, restaurants, convenience and grocery chains and technology companies, have chosen to implement wireless technology.

In addition to major businesses and retail chains, what Lottery jurisdictions in the United States currently use wireless technology?

Texas, Washington, New Mexico, Colorado, Minnesota, Nebraska, Arizona, Georgia, New York, Tennessee, Kansas, Idaho and California are Lottery jurisdictions that have all successfully embraced the use of wireless technology.



Wireless Technology **Questions & Answers**



What benefits and advantages does this new wireless technology bring to Washington's Lottery and the Lottery Retailer Network?

Wireless technology provides a direct link to the Lottery processing center, allowing for faster transactions and less down time for each retailer, and less overhead involved when activating new retailers or making changes to existing retailers.

When does the conversion process to wireless begin and how will it be completed?

We will install your new Lottery terminal hardware to include your new wireless communications equipment beginning in April 2006. This process is scheduled to be complete by the end of June 2006.

There will be no need to contact the Lottery regarding your new wireless or terminal equipment. You will receive notification of your wireless equipment and terminal installation dates prior to their install. Additional information will be provided to you in the months ahead.

What are the dimensions of the satellite dishes?

The satellite dishes proposed for Washington's Lottery retailers vary in size from .98m to 1.2m and weigh approximately 500 pounds.

Who will be responsible for the installation of this new wireless communications equipment?

GTECH Corporation, our Gaming and Telecommunications vendor and partner, will be responsible for the installations of your wireless communications equipment.



Wireless Technology **Questions & Answers**



What do Lottery retailers need to do to prepare for the installation of the wireless communications equipment?

It is highly recommended that the retailer provide three dedicated power outlets at the point of sale to accommodate the lottery terminal, customer display and a small indoor communications unit. Lottery Retailers will be contacted by a representative from GTECH regarding their equipment installation date and can answer any questions they may have.

How will the wireless equipment be installed? What modifications will be made to the retail location during the installation?

- STEP I.** GTECH Communication Network Installers will gain roof access at the retail location and determine the best placement for the outdoor equipment and then install the equipment on the retailer's building.
- STEP II.** The installer will mount and secure the new communications equipment. No holes will be drilled into the roof of the retailer's location during a standard installation. There are some situations that require a hole to be drilled but this will not be done without prior permission from the building landlord/owner. These are isolated incidents and very seldom occur.
- STEP III.** Coaxial cable will be used by the installers to connect the outdoor wireless equipment through a existing point of entry, to a receiver mounted inside the Retailer's store. In the event there is no existing point of entry; the installer will create and seal a point of entry appropriately.

Once the wireless equipment is installed, what happens next?

There will be no impact to your store or your existing Lottery terminal following the installation of your new wireless equipment. Retailers can continue selling Lottery products without disruption.



Wireless Technology **Questions & Answers**



it's good to play

Do I have to have a satellite or radio or are there other options?

The majority of Washington's Lottery retailers will receive either a satellite or radio communication solution. GTECH has performed extensive analysis and propagation studies to determine the most feasible and efficient technology platforms for each Washington retailer location. This is based on various parameters which include geographic location and environmental variables, such as foliage or other obstructions that could interfere with an acceptable line of sight or affect signal strength. The results of this analysis will determine whether satellite or radio is the optimal communication solution for your store.

If I don't want a dish or other hardware on the roof, can I choose another location for them to be installed?

Because we feel that the information we have gathered is accurate and the most appropriate for each individual location, installs will be completed as we have determined they should be. However, if we do encounter difficulties or for other reasons it is deemed that an alternate method is appropriate, we will take that into consideration and proceed accordingly.

I've been told that I need a dedicated outlet at my location in order to get a new terminal. If I currently have a lottery terminal does that mean I have a dedicated outlet? If not, how can I tell if I do or not?

If you currently have a lottery terminal then chances are it is plugged into a dedicated outlet. However, if there is any doubt or you have an electrician who can check this for you it is very easy to do and have installed if necessary. Typically, a dedicated outlet is easily identifiable because it is color-coded orange.

Who do retailers contact if they have questions regarding this new wireless equipment?

Retailers with questions regarding the installation of their new wireless equipment can contact GTECH's Hotline at 888-810-HELP (4357).

RE: Non-Penetrating Roof Mounts

Dear Customer:

The satellite and radio industry and its customers have been utilizing a method of installation called a Non-Penetrating Roof Mount (NPM) for over 20 years. This mount design was created to have the lowest impact on the integrity of the roof it is placed upon. Since the beginning of its use there have been very few issues relating to roof damage caused by such a mount.

GTECH Corporation has installed over 100,000 wireless platforms ranging in size from light-weight Yagi radio antennas to 2.4m satellite antennas on the non-penetrating roof mounts.

Our method of a NPM installation is as follows:

1.) We will select a location preferably over a vertical column and/or I-Beam. We verify to the best of our ability that the roof structure and surface at this location is in good condition and level. Additional selection criteria may be the proximity to the Point-of-Entry (POE) for the IFL cables, aesthetic reasons aimed at reducing visibility from surrounding areas, and avoidance of blocking service to other rooftop type equipment such as HVAC units.



2.) We clear the area of debris. Tar/pea gravel areas are checked for large uneven deposits of stone and bubbles in the tar. Membrane surfaces are swept clean.

3.) A non-petroleum based roof pad product such as R-Walk and Trafbloc are placed down and the NPM is constructed on these pads. Extra pads can be installed as necessary to meet roof warranty requirements. Stones are redistributed evenly back around mount.



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4.) Cinderblocks are placed on the mount. The quantity of cinderblocks is determined according to calculations performed which take into consideration the mount and antenna size, geographical wind zone, roof height, roof construction type and antenna angle.

5.) During the entire time of mount and antenna construction and all other tasks on roof, extreme care will be taken so as not to impede on the integrity of the roof.

6.) Typically, an existing Point-of-Entry (POE) for the very small IFL cable exists on most buildings. These POE's normally exist for other items that penetrate the roof such as conduits. Pitch pockets, roof vents, and conduit "doghouses" are a few of the standard POEs. Installation is always performed in manner to avoid any chance of leaks and insure serviceability of components such as vent fans, and HVAC units.

If any new roof penetrations are required, we will first obtain approval from the Landlord.

Thank You –

GTECH Corporation

Indoor Satellite Unit "IDU"



This system will be optimally placed at your point of sale (POS) and will be the gateway for your Lottery systems to the host systems at Washington's Lottery Primary and Back-up Data Centers.

It is beneficial that this unit be located near your POS so that easy access may be obtained should the need arise when you, the retailer, need to communicate with the Lottery helpdesk.