Quantum Facility Capacity Maximums:

- **75** Quantum processors can be linked within one facility
- **18,750** stations using a combination of analog station devices and VoIP phones
- **600** non-blocking calls *(instantaneous capacity depends on call origination and destination)*
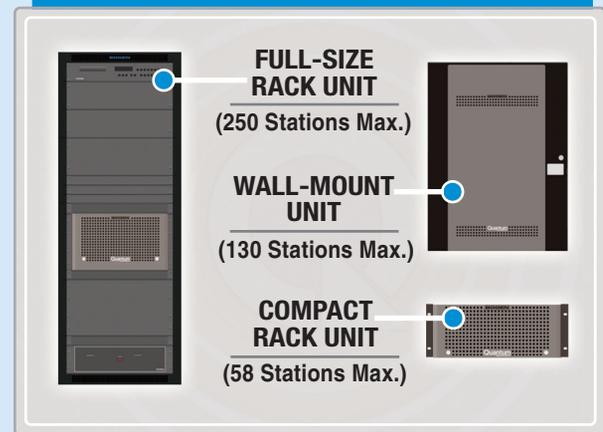- **1.125** loop start central office telephone lines

Available Schedules, Zones, and Devices:

- **64** multi-purpose zones *(page, time, page+time, security)*
- **32** schedules, including calendar-based holiday schedules
- **1024** separate schedule events per facility
- **23** unique station device types
- **32** assignable classes of service
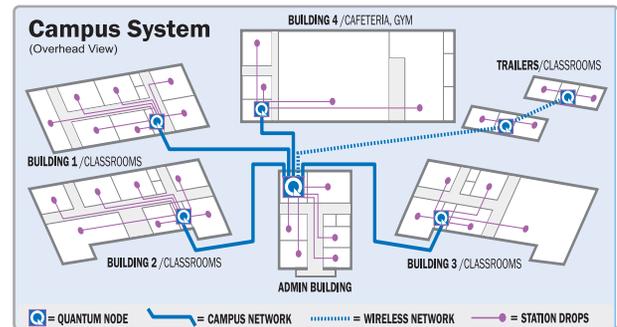
Quantum District Capacity:

- **99** interconnected facilities per district

QUANTUM PROCESSOR UNITS

FULL-SIZE RACK UNIT
(250 Stations Max.)

WALL-MOUNT UNIT
(130 Stations Max.)

COMPACT RACK UNIT
(58 Stations Max.)

Quantum Deployment:

The Quantum system is extremely scalable and can be deployed to meet the demands of any facility configuration. The Quantum system uses a distributed facility architecture that places processor nodes at appropriate locations throughout the facility and links them together into a single system using the existing network infrastructure. By breaking the system into smaller, local processor nodes, thousands of feet of interconnecting home-run wire, as well as any associated conduit, trenching, surge protectors and installation costs, are eliminated. The scalability of the Quantum processor nodes allows perfect tailoring of the hardware to the local capacity requirement.

Campus System
(Overhead View)

BUILDING 4 /CAFETERIA, GYM

TRAILERS/CLASSROOMS

BUILDING 1 /CLASSROOMS

BUILDING 2 /CLASSROOMS

ADMIN BUILDING

BUILDING 3 /CLASSROOMS

Q = QUANTUM NODE   = CAMPUS NETWORK   = WIRELESS NETWORK   = STATION DROPS

Integrated Classroom, Campus, and District Solutions *(see center panel illustration)*

(1) District-wide Communications
Quantum allows entire school districts to be interconnected providing a way to make district-wide All-Call announcements, All-Call announcements to a single school and point-to-point communications between schools, B.O.E. offices, etc. Up to 99 facilities total can be interconnected into a district.

(2) Upgrade Your Existing Multicom 2000 to a Quantum System
Existing Bogen Multicom 2000 school intercom systems can be easily, and cost effectively upgraded with Quantum capabilities because it is backwards compatible. With this upgrade, the facility enjoys all the Quantum features, such as network-based control and district-wide interconnectivity.

(3) Expansion of Existing Facilities
New building additions can take advantage of the distributed facility architecture of Quantum by locating hardware near the new classrooms to provide shorter wiring runs and then use the facility's network infrastructure to link the existing and new sectors into one fully integrated school communications system.

(4) Network Phone Connections
Network connected VoIP phones are also available for Quantum. These phones provide a convenient way of installing phones in areas that already have a network drop.

(5) Network Connections to Remote Locations
Quantum hardware located in classroom trailers can easily connect to the main facility by means of the network drops feeding the trailers. If there are no existing drops, a wireless link can be used to make the network connections and carry the communications as well as the data to the remote classrooms.