

Morrison Dental Associates: A case study showing the successful integration of voice and data services to connect multiple offices.

Issue:

Morrison Dental Associates, a dental practice with locations in Savannah, Brunswick and Atlanta, wanted to generate greater efficiencies and increase customer service for its growing base of patients.

It had some challenges. Each office had its own phone system, with one main number and a host of internal extensions. Callers could not dial employees directly; instead, they had to call a specific office and then were transferred to the appropriate person. Moreover, there wasn't a voicemail system, so the operator took written messages. Other inefficiencies:

- Callers had to hang up and redial a second or third office because the offices couldn't transfer calls.
- Calls from the Savannah office to the Brunswick or Atlanta offices incurred long distance charges because there wasn't any connectivity between the six offices.
- A downed computer meant that the administrator had to drive to the affected office because there was no Wide Area Network.

What Speros did:

Speros integrated the computers and phone system. It also established a Wide Area Network that connected the six offices. This configuration enabled greater functionality and economies of scale.

In particular, with the computers/phones networked, the practice set up one office to handle all the billing and accounting functions, as well as appointment scheduling. This centralization allowed the individual offices to eliminate their billing and administrative resources and use them for other functions.

It also enabled patients to continue calling the individual office numbers they had called for years. But now, if they wanted an appointment at another office, they didn't have to hang up the phone and redial. It just took one call.

Other functionality achieved through the new configuration:

- Each employee now has an individual phone number that can be dialed directly from the outside. (Each site retained the number publicized in the phone book for customer convenience).
- Employees in different offices can call each other without incurring LD charges. They can also intercom the remote office.
- Each office could eliminate its DSL line to the internet because the network allows data and internet files through the same pipe.
- The network administrator can now troubleshoot any problem anywhere in the network from the Atlanta office.
- Morrison employees can receive sensitive faxes via e-mail. The dental practice also has centralized voicemail so callers can leave messages for any office.
- Morrison can add employees easily to the network. The network administrator just sets up the employee with a new phone extension and computer - and he/she will be connected immediately.

"By marrying voice and data services, Speros has tied all our offices together and helped us become significantly more efficient," said Dr. Morrison, President of Morrison Dental Associates.

Some Terms:

Gateway: A network element that performs conversions between different coding and transmission formats. The gateway does this by having many types of commonly used transmission equipment and/or circuits from different carriers to provide a means of interconnection.

Switch: A mechanical or solid state device that opens and closes circuits, changes operating parameters or selects paths for circuits on a space or time division basis.

PRI: Primary Rate Interface. An ISDN subscriber line, consisting of twenty three 64 Kb/s B bearer or user channels and one 64 Kb/s D channel, used for signaling and synchronization.

Bandwidth: Determines the rate at which information can be transmitted across a medium. The rates are measured in bits (b/s), kilobits (Kb/s), megabits (Mb/s) or gigabits per second (Gb/s). Typical transmission services are 56Kb/s, 64Kb/s, 1.544Mb/s (T1) and 45Mb/s (T3).

Router: A device or setup that finds the best route between any two networks, even if there are several networks to traverse. Like bridges, remote sites can be connected using routers over dedicated or switched lines to create WANs.

DID: Direct Inward Dialing - A method in which incoming calls are routed directly to endpoints on the LAN, without operator intervention.

Circuit: 1. Means of two-way communication between two or more points. 2. In communications systems, an electronic, electrical or electromagnetic path between two or more points capable of providing a number of channels.