

VoIP (Voice over Internet Protocol) offers end users a lot of features and cost savings compared to the traditional PSTN (Public Switched Telephone Network) . The following table is a brief comparison of the two technologies:

### **Carrier Lines**

PSTN        Dedicated lines required from the telco.

VoIP        All voice channels can be transmitted over the one Internet connection

### **Bandwidth**

PSTN        Each analogue telephone line uses 64kbps in each direction.

VoIP        Using compression, VoIP can use as little as ~10kbps in each direction. Further bandwidth can be saved by using silence suppression (not transmitting when the person is not speaking).

### **Features such as call waiting, Caller ID, conferencing, music on hold, etc.**

PSTN        Often available at an extra cost.

VoIP        Generally available for free.

### **Remote PABX extensions for teleworkers and branch-offices.**

PSTN        Very costly and require dedicated lines for each remote extension.

VoIP        Remote extensions are a standard feature.

### **Expansability and upgradeability**

PSTN        Complex: can require significant hardware additions, provisioning of new lines, etc.

VoIP        Often just requires more Internet bandwidth and software upgrades.

### **Choice of companies to terminate calls**

PSTN        Each line is provisioned by a single telco, meaning there is very limited least cost routing.

VoIP        Hundreds of VoIP providers to choose from to terminate calls.

### **Typical business line rental**

PSTN        \$40

VoIP        \$11

### **Typical local call cost**

PSTN        17c

VoIP        14c

### **Typical mobile call cost**

PSTN        35c/min + flagfall

VoIP        32c/min (no flagfall)

### **Free Calls**

PSTN        None

VoIP        To other VoIP users of the same gateway (eg., between offices)