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)