

**NodePhone
Business Trunks
User Manual**

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NodePhone Business Trunks

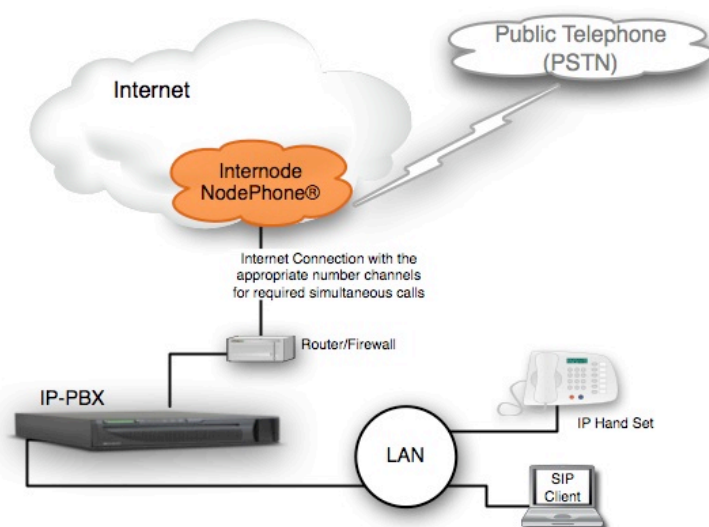
NodePhone Business Trunks is an implementation of Sip Trunking which provides a business-grade voice solution that now allows you to move to a full VoIP solution, or make full use of your already installed IP-PBX. Now not only can you use IP to communicate with-in your organisation, but also outside with your own 100 number in-dial range.

Having your own 100 number range allows every phone in the office to have a direct number with the room for expansion. Need more numbers just order another 100 number range and your done! The NodePhone online tools will allow you to have number publish when outbound calling, all calls to appear from a single number, or even hide the number.

Unlike traditional telephony services where bundles of physical wires are delivered to a PABX, a single Internet service with a NodePhone Business Trunk connecting to an IP-PBX giving you a similar service and more. Online you can dynamically change your capacity for inbound or outbound calls, no longer having to book and wait for a technician to visit.

NodePhone Business Trunks can offer organizations significant cost-savings, eliminating the need for local PSTN gateways, costly ISDN Basic Rate Interfaces or Primary Rate Interfaces.

The NodePhone Business Trunk provides a competitive solution for extra telephone lines, for adding extra Direct Inward Dialing (DID) capability, or back-up of traditional telephone line solutions.



Features

An Internode Internet service with appropriately dimensioned bandwidth allows the NodePhone platform to automatically prioritise voice traffic to ensure you always sound your best.

1. 100 Number Block Direct Indial Range, to facilitate direct extension dialing and billing.
2. Provides multiple channels, with online flexibility for near-instant scalability for your changing business needs.
3. Support for inbound and outbound VoIP calls with an IP-PBX to business customers.
4. Online Toolbox for managing features
5. Choice of 'prime number', as well as a fail-over number if the PBX is unreachable for Business Continuity for redundancy
6. Extension Level Billing online
7. Single Bill for telephony and Internet services.
8. Cost savings via standard NodePhone call rates, including free NodePhone to NodePhone calls (eg between offices).
9. High quality VoIP via Internode's Voice Network.

Sip Trunking Explained

A Sip Trunk allows an IP-PBX to make calls across the Internet using VOIP, in much the same way that a NodePhone service does, but designed for Business. The VOIP industry has developed Sip Trunking mainly as a replacement for traditional ISDN PRI services, to offer customers better flexibility and reduced costs. In fact Internode uses a NodePhone Business Trunk to run its business telephony needs, including the Call Centre.

NodePhone Business Trunks gives you the flexibility to choose the number of channels you want, unlike traditional telephony services which charge a rental cost for each telephone line. For example you may have 20 people working in the office but at any one time only 5 of them are making calls. Traditionally you would have needed to either rent individual lines for all 20 phones, or purchase and ISDN PRI, which would have a minimum size of 10 lines. With NodePhone Business Trunks, you only choose and pay for the number of channels (lines) you need in this example 5. As your Business expands or call volumes increase you can increase your channel counts in single increments online. This is compared to traditional telephony services, which typically have fixed increments such as 10/20/30, and you pay for channels you are not using.

What do I need

Internode can supply both Internet connectivity and a NodePhone Business Trunk. Internode doesn't supply the IP-PBX, or integration services for them. Integrators who Internode recommends are:

- Vtalk - Sydney
- Subnet -Adelaide
- Mac Centre Norwood - Adelaide, specialising in UC500s'
- geek.on.net - specialising in Asterisk

Our customers on Cisco Call Manager, Cisco CUBE and Asterisk have successfully used Internode Business Trunks. Typically if the IP-PBX has been verified by Broadsoft, and is SIP compliant then it should work with NodePhone Business Trunks. Its highly recommended to get an experienced integrator, to install, configure and support your IP-PBX.

Costs

Service	Monthly Fee	Monthly Call Credit
BusinessTrunks-Starter	\$5	\$10
BusinessTrunks-Value	\$10	\$20
BusinessTrunks-Premium	\$20.00	\$40.00
BusinessTrunks-100	\$50.00	\$100.00
BusinessTrunks-200	\$100.00	\$200.00
BusinessTrunks-400	\$200.00	\$400.00
BusinessTrunks-1000	\$500.00	\$1,000.00

All Call rates are as per standard NodePhone call rates –

internode.on.net/residential/nodephone/call_rates/

Additional costs

Service	Establishment	Ongoing Monthly
100 Number Indial range	\$50.00	\$25
Channels	\$50 per channel	\$10 per channel



How much bandwidth do I need?

A NodePhone Business Trunk is best implemented over dedicated Internet connections and each channel needs approximately 100 Kbps for best call quality.

Access	Speed (upload & download)	Channels
Business ADSL TwoPlus	up to 20/1 Mbps	up to 10, depending on actual bandwidth achieved
Business Extreme ADSL2	up to 24/2.5 Mbps (annex M)	up to 25, depending on actual bandwidth achieved
Extreme SHDSL 10 Mbps	10/10 Mbps	Up to 100 Channels

Technical information

Internode recommends customers consult their IP PABX Integrator, for performing the integration to a NodePhone Business Trunk.

The following is provided to help assist customers provide sufficient information to their integrator for connection to the NodePhone Business Trunk.

The NodePhone Business Trunk product is an implementation of SIP Trunks. It allows a single registering service to receive calls for, and originate calls from multiple numbers. The number of 'channels' allocated to a Business Trunk service is configurable. Customers should work with their Integrator to determine the number of simultaneous calls they expect to use on the service in line with their business needs.

NodePhone Business Trunk requires that the IP PABX only 'register' their service once, on behalf of all the 100 number block. The Business Trunk platform then will handle all outgoing calls and incoming calls directly to the IP PABX.

The NodePhone Business Trunk uses the very similar settings to a standard NodePhone Service. The major difference is that devices should register towards our Session Border Controllers using sipconnect.internode.on.net or 203.2.134.10. This enables our platform to handle your 100 number block.

Internode has customers using various variations of Cisco equipment, for example CUBE, UC500 and access gateway 5400's as their IP PABX. We have found that the following configuration information is all that is required for integrators to connect to a NodePhone Business Trunk:

```
sip-ua
credentials username <Client ID> password <password> realm BroadWorks
authentication username <Client ID> password <password> realm BroadWorks
no remote-party-id
registrar dns:sipconnect.internode.on.net expires 3600
sip-server dns:sipconnect.internode.on.net
or
registrar ipv4:203.2.134.10 expires 3600
sip-server ipv4:203.2.134.10
```

Internode has customers who use Asterisk as their IP PABX. We have found that the following information is useful for Integrators setting a NodePhone Business Trunk.

There are two main files which will need alteration, sip.conf and extensions.conf. The below is an example of a working configuration:

```
sip.conf
[general]
;For registration use your Client ID and password to register on behalf of the devices.
register => <client id>:<password>@nodephone/s
registertimeout=60
context=default
allowoverlap=no
bindport=5060
bindaddr=0.0.0.0
srvlookup=yes

[nodephone]
context=nodephone
type=friend
username=<client id>
fromuser=<Enter your main phonenumber here in format 0812345600>
secret=<password>
fromdomain=sip.internode.on.net
host=sipconnect.internode.on.net
dtmfmode=rfc2833
disallow=all
allow=alaw
allow=ulaw
nat=no
insecure=very

[5676]
;JoeBloggs
context=nodephone-outbound
type=friend
host=dynamic
secret=<give them a password>
nat=no
canreinvite=no
disallow=all
allow=ulaw
allow=alaw

extensions.conf
[globals]
;-----
; Users
;-----
JoeBloggs=SIP/5676

[nodephone]
;send incoming calls from specified number to the appropriate extension
exten =>0812345600,1,Dial(${JoeBloggs},20)
exten =>0812345600,n,Hangup
```