



Introduction

For today's small and medium businesses (SMBs), implementing software-based Vodia Phone System for Linux, Windows, Mac, or Docker offers many benefits over traditional systems including:

- Cloud Software-as-a-Service Phone System
- Cost savings
- Simple Administration, Management & Control
- More choice of phones and trunking providers
- Robust feature set including integrated mobility, video and IVR
- Scalability
- Enhanced worker productivity

Yet for many businesses, a complete overhaul of existing telephony devices and infrastructure may not initially be the most desirable approach. Re-using cable infrastructure, phones, fax machines, intercoms, paging systems or other terminals are usually part of adopting VoIP.

For some, there may be reliability concerns in switching to a new unfamiliar VoIP service provider or limited availability of data connectivity necessary for VoIP calling or SIP Trunks. Others may find themselves locked into a service contract with their traditional provider and need to continue using traditional Analog or TDM trunks for a period of time.

Patton's SmartNode Gateways give you the ability to leverage your existing traditional phone service provider and on premise telephony equipment that would normally be incompatible in an IP environment. By installing a SmartNode Gateway, Enterprises are adding benefits of a software-based IP PBX while continuing to use their trusted PSTN lines and phone gear.

Patton's SmartNodes can provide Enterprise Session Border Control in a hybrid environment supporting traditional trunks, SIP trunks or both. This functionality enables trunks to be transitioned over time. It also supports survivability for those who appreciate the ability to failover to traditional trunks in event of a loss of broadband connectivity.

Introduction (Cont.)

The Patton Cloud "Edge Orchestration Service" enables providers and customers to manage, monitor, secure, alert, troubleshoot, analyze and optimize telephony and UC services. License services from the Cloud enable devices to be transformed, such that a Trunking Gateway can be morphed into an eSBC when the trunk type changes, or 1st line trunks can be morphed into 2nd line survivable trunks.

The following sections contain strategies for implementing a Patton SmartNode Gateway into your Vodia environment.

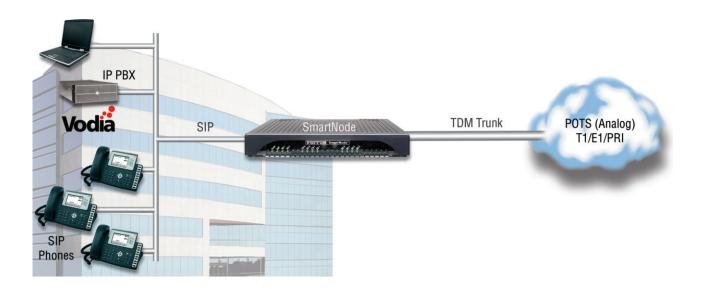
Trunking Gateway

Offering Patton's SmartNode Gateways in conjunction with Vodia Phone System gives you the ability to provide IP features and continue using trusted POTS or TDM lines and existing service provider.

It is also common for SMBs to have concerns with trusting a new unfamiliar VoIP service provider. In these situations, a smooth installation is critical. For just a few hundred dollars for a 2 or 4-port gateway, you can install Vodia Phone System with your existing POTS or TDM lines.

When you are ready to change from a POTs/TDM lines to SIP Trunks, the same devices can be used to support SIP Trunk termination, Edge Session Border Control and Security. It is also possible to keep POTS/TDM lines connected and deploy hybrid trunking where the legacy circuits can be used for a fallback line using your SmartNode.

Patton Cloud enables the devices to obtain new licenses to automatically empower the change in the device function.



Connecting Incompatible Legacy Equipment

It may be advantageous to continue using legacy telephone devices (telephones, fax machines, intercoms, paging systems, speakers, call boxes or other terminals). Businesses appreciate not having to replace every single endpoint with expensive new SIP End Points; all at once. The SmartNode Gateway gives SMBs the ability to connect this existing

equipment to the Vodia Phone System.

Integrated using SmartNode with Vodia Phone System

BRI

T1/E1

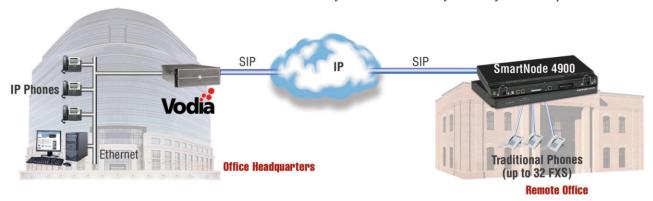
ISDN PRI

Analog FXS/FXO

Off-Premise Extensions

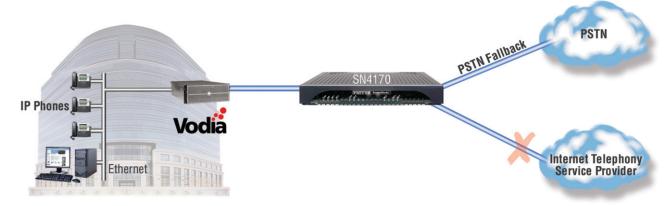
Connecting Remote Offices

The SmartNode Gateway can be used to connect analog, ISDN and IP telephony from a remote office to your Vodia Phone System in your headquarters over IP.



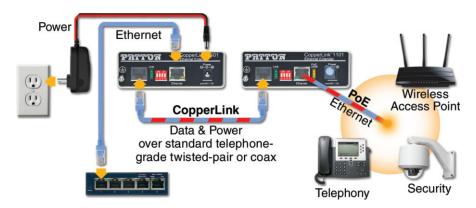
SIP Trunking with Fallback/Survivability

A SmartNode ensures SMB's telephony continuity by setting their VoIP phone network up with survivability. A SmartNode VoIP Gateway can be used to fallback to the PSTN in cases where the Internet telephony service provider or internet connection goes down. It's can also be connected to multiple broadband connections (wired or wireless) and support multi-WAN failover to ensure trunk or cloud connectivity is reliable and redundant.



Re-Using Existing Legacy Cable Plant

Old telephone grade wiring can be a barrier to deploying SIP end points. Ethernet requires CAT 5 cabling and does not support distances more than 100 meters (328 feet). And legacy wiring cannot support PoE. The cost of reengineering cable spans to support Ethernet or installing new cable infrastructure can be prohibitive. Patton's CopperLink Ethernet Extenders enable SIP End Points to be connected to Vodia telephony services over legacy inside or outside cable plant.



SmartNode VolP Gateways

- Integrates IP and TDM communications with Vodia
- Analog FXS/FXO, digital ISDN BRI and T1/E1/PRI Telephony Interfaces:
 - 1 to 32 FXS/FXO
 - 1 to 8 ISDN BRI
 - 1 to 4 T1/E1/PRI
- 1 to 120 VoIP or fax call capacity
- Options for internal IP router, WAN interface and transcoding functionality
- Supports simultaneous SIP, H.323, ISDN and POTS calling—plus T.38 faxing



CopperLink Ethernet Extenders

- Reuse existing analog telephony infrastructure for IP connectivity
- Extend Ethernet up to 32,000 feet or PoE up to 2,000 feet
- Form factors for any application:
 - Indoor Desktop (0 to 50°C)
 - Indoor Industrial (-40 to 85°C)
 - Outdoor Industrial (-40 to 85°C); IP68
 - PCB level for integrating into systems or devices
- Increase connectivity reliability with wire bonding and cellular failover options
- Flexible topologies-point to point, star and multi-drop
- Operate at the physical layer, completely transparent to higher layer protocols and codecs



Vodia Preferred Gateways

Ports*	SmartNode Series	Exact SKU
2 FXS	SN4140	SN4141/2JS2V/EUI
4 FXS	SN4140	SN4141/4JS4V/EUI
8 FXS	SN4140	SN4141/8JS8V/EUI
2 FX0	SN4140	SN4141/2JS2V/EUI
4 FX0	SN4140	SN4141/4J04V/EUI
8 FX0	SN4140	SN4141/8J08V/EUI
1 T1/PRI	SN4171	SN4171/2ETH2E30VRHP/EUI
2 T1/PRI	SN4171	SN4970A/4E120VRHP/EUI
3 or 4 T1/PRI	SN4970A	SN4970A/4E120VRHP/EUI

^{*}For additional SmartNode models (including those with BRI interfaces), go to www.patton.com/smartnode.

Easy Configuration

The Vodia PBX Phone System provides a Gateway Wizard to automatically generate a config file for your SmartNode Gateway on the LAN. Simply plug in your Patton device on the same LAN as the Vodia PBX Phone System. Vodia can detect the make and model of the Patton Gateway and provision it as well.







- Seamless integration with Vodia and auto-provisioning
- Patton Quality and Reliability
- Industry-Best Customer Support (FREE)
- Proven Interoperability
- Robust Enterprise Feature Sets and Functionality
- Swiss Engineered. Made in the USA.

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