

# ***Enterprise IP Telephony: Open Source or Proprietary***

***presented by  
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# ***What is Open Source Software?***

- There are a lot more licenses than just GPL(the license Linux is released under), there are 54 official Open Source licenses, For example:
    - BSD License
    - Apache Software License
    - Mozilla Public License
  - Open Source does not necessarily mean cost-free
  - Dual licensing the same piece of software as both Proprietary and Open Source is possible:
    - Asterisk PBX
    - MySQL Database
    - Sendmail
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# *Open Source Software Restrictions*

- Free Redistribution
- Source Code included with distributed software
- Derivative works must be allowed
- No discrimination against any person, group or field of endeavor
- Distribution of the license without restriction
- License cannot be for only one piece of software
- License must not restrict other software it is distributed with or used with
- License must be Technology/Language neutral

# *Advantages of Proprietary IP Telephony Systems*

- Longer on the market
  - Several companies were active in setting first VOIP standards
  - All components guaranteed to work together
  - Almost all existing VOIP hard-phones currently on the market are from Proprietary manufacturers
  - More polished administrative interfaces and documentation
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# ***Disadvantages of Proprietary IP Telephony Systems***

- Support, bug-fixes and product life tied to manufacturer
  - Product changes can be made by manufacturer and authorized partners only
  - Total software and licensing costs can be very high per seat, and some are for limited time-frames or limited functionality
  - May not support a specific protocol you need
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# ***Advantages of Open Source IP Telephony Systems***

- Anyone can alter the source code as they see fit
  - Some Open Source licenses offer free use even for commercial implementations
  - Many Open Source projects have communities of developers and users that are well-versed in the operation and administration of the software.
  - Open Source Hardware specifications allow for easy development of devices by different companies using the same drivers and protocols(such as Zaptel and PA168)
  - Choice of hundreds of different VOIP phones
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# ***Disadvantages of Open Source IP Telephony Systems***

- Documentation is not complete or does not exist
  - Often there is no thorough compatibility testing
  - Product lines not as mature
  - Some projects have very few higher-level people available for consulting
  - No official guarantee of functionality or future fixes (no corporate ownership of the code)
  - It is difficult for outside firms to support heavily customized Open Source systems
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# *Large Organizations Using Open Source IP Telephony*

- Sam Houston State University
    - Switching from Cisco/Nortel to Asterisk
    - Wanted more control over systems and lower cost
    - 1,600 phones moved to Asterisk so far
  - Fonality – PBX system manufacturer
    - Asterisk-based
    - Over 15,000 phones deployed on their systems
  - Vonage – VOIP Phone service provider
    - Uses Asterisk for its voice-mail systems
    - Over one million voice-mail accounts on Asterisk servers
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# ***Open Source IP Telephony might be a good fit for your company if...***

- You want to control the code of your system
  - You want deep integration of your IP Telephony components with your existing IT systems
  - You have adequate staff for managing and developing the system or you have reliable outsource companies for such maintenance
  - You want to easily and cheaply add a single extra component to your existing Telephony system:
    - Voicemail
    - Conference Calling center
    - Call center functionality
    - IVR
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# ***You might want to avoid Open Source IP Telephony if...***

- Your company has strict programming or application acceptance guidelines
  - You do not have the staff to support the system or you cannot find reliable outsource companies
  - The specific Open Source project you want to use is not in wide production use
  - You are worried about a competitor being able to use the same software you are supporting
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# *Comparison of two products*

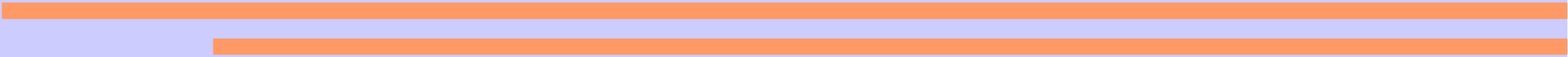
- Asterisk
    - Open Source
    - More protocols
    - Much cheaper cost
    - More control over detail points
    - No per-port licenses
    - More easily scalable
  - Cisco Call Manager
    - Proprietary
    - Much more refined GUI admin and user interface
    - Very well tested with Cisco equipment
    - Very well supported
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# ***The Best Solution for Many Companies...***

- Mixed Proprietary with Open Source
    - Ease of phased-in components (switch IVR one month, the switch Voicemail the next month, etc...)
    - Easy integration because most proprietary IP Telephony systems conform to standards such as SIP
    - Take the strengths of each for different functions
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# ***Open Source IP Telephony: Try it, no pressure***

- The best part about almost all Open Source IP Telephony components is that they almost always cost nothing to just try them out.



***Thank you***

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