

AstLinux: The Professionals PBX

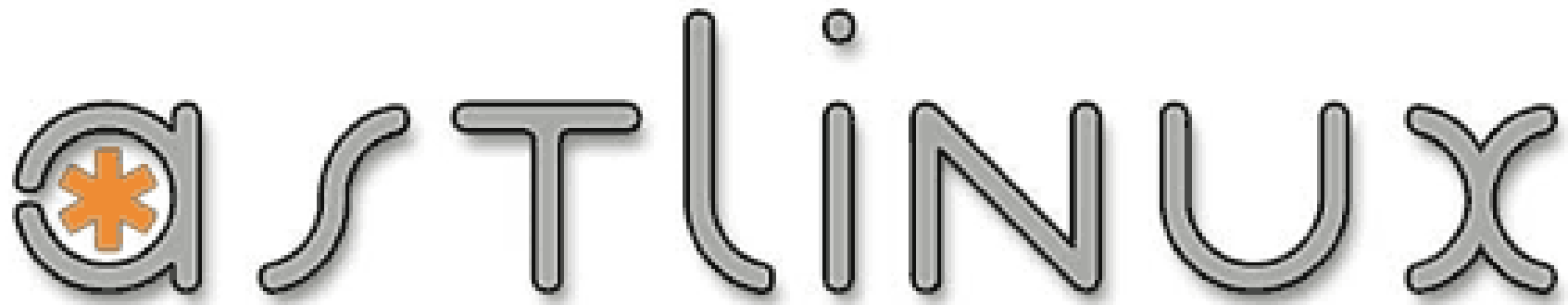
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<http://www.astlinux.org>

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What is AstLinux?



AstLinux is a GPL Linux distribution for building appliances. Specializing in VoIP, AstLinux could be considered the FOSS equivalent of an integrated access device (IAD), with a full range of features that you would expect from such an IAD

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What can an IAD do for you?

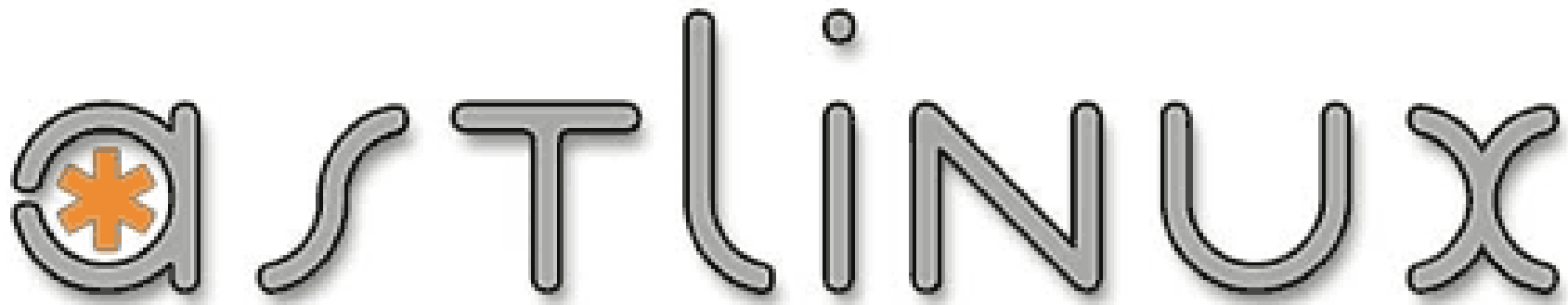
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- QoS
- Layer 3 routing
- Layer 2 bridging
- Firewall
- VLANs (802.1q)
- DNS proxy/cache
- DHCP server/client
- VoIP support (IAX2/SIP/MGCP/SCCP)
- T1/PRI support
- FTP/TFTP/HTTP/HTTPS server support
- VPN – IPSEC/IKE, vtun, openvpn

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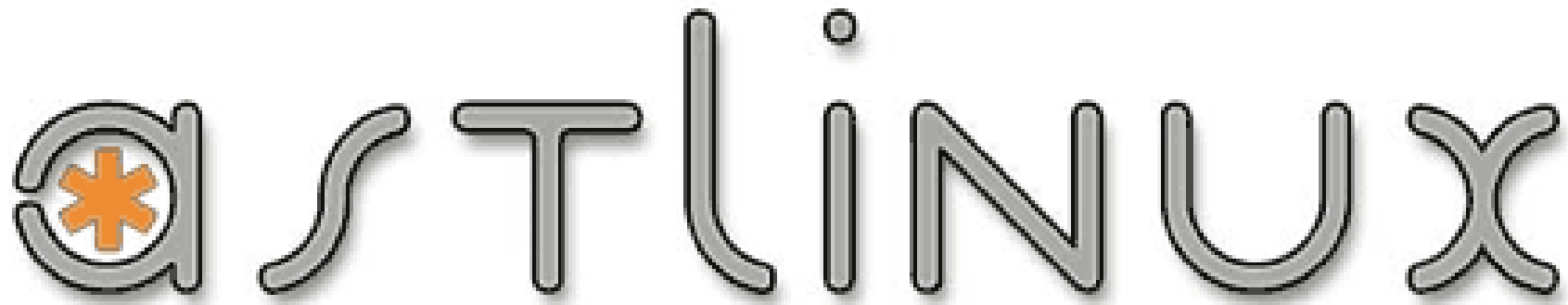
Included software

- Linux kernel 2.6
- uclibc
- busybox
- Asterisk
- vsftpd, tftpd, mini_httpd, php, openssh, openntpd, openssl, msmtplib and much, much more



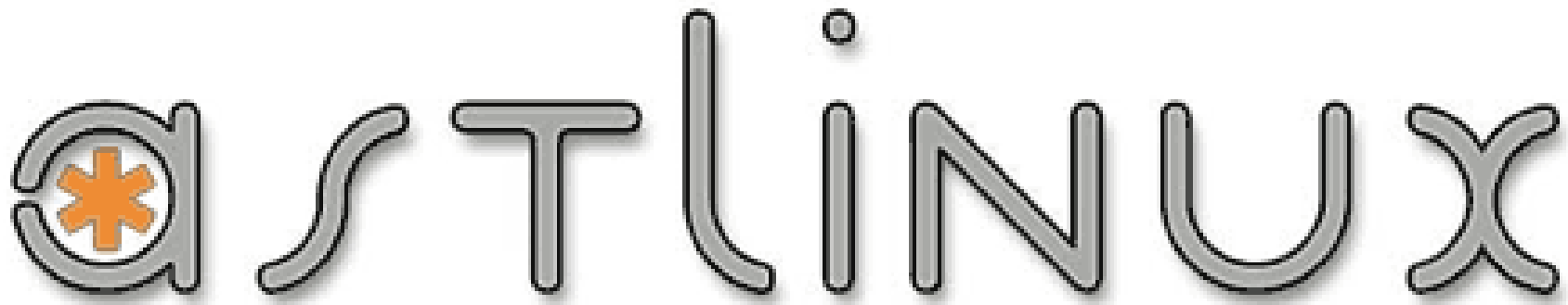
Advantages

- Security
- Stability
- Features
- Support
- Ease of use



Central Design

- Root filesystem mounted read-only
- One central configuration file – rc.conf
- Keydisk



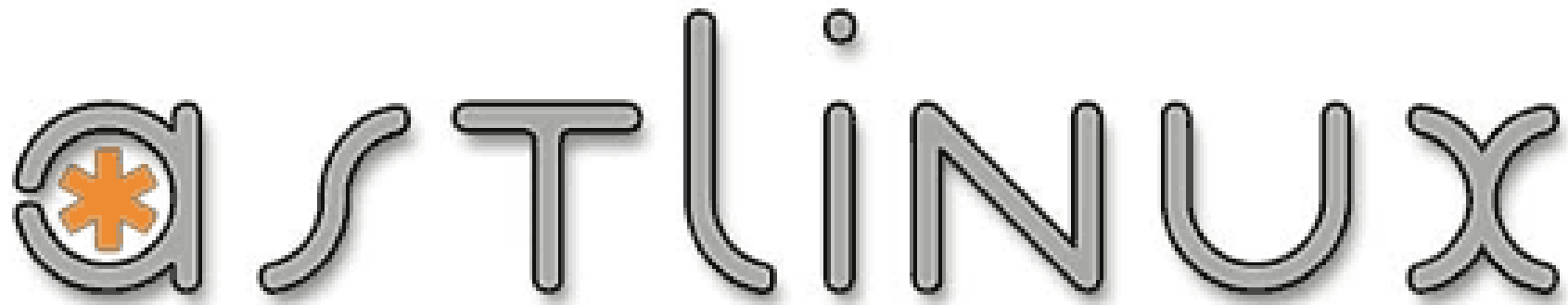
Simplified configuration: rc.conf

- ASCII text file sourced by every AstLinux script and init script.
- Simple variable name = value format.

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The Keydisk...

- Voicemail
- rc.conf
- DHCP leases
- tftp, ftp files (firmware, phone configs, etc)
- Anything else you want to put there...
- Can be any partition – USB flash drive, separate device, NFS, etc.



Design Principals

- Minimal GUI (tools to build your own)
- Platform compatibility
- Small size
- Memory efficiency
- Provisioning friendly

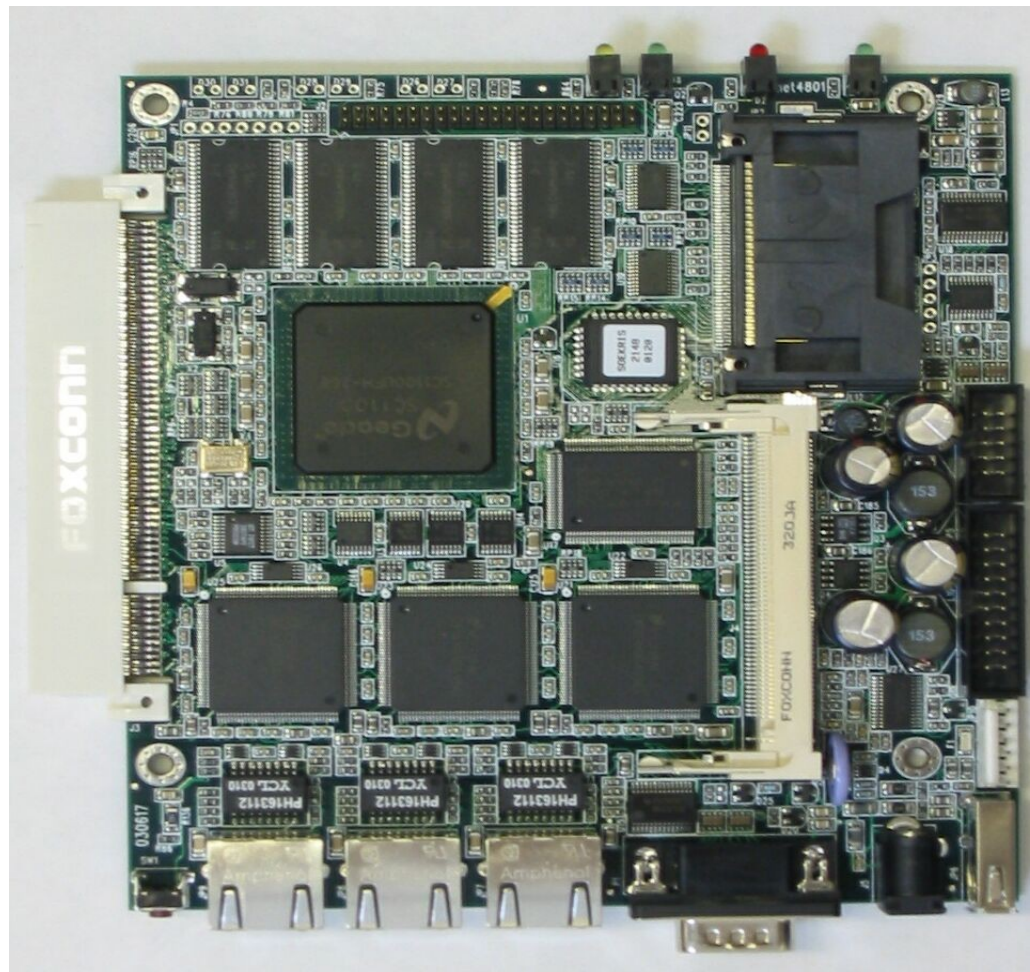
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Hardware

- Soekris Net4801
- PCEngines WRAP
- Mikrotik RouterBoard 220/230
- VIA Epia
- Gumstix!
- Pentium-MMX or better PC's
- Anything else supported by buildroot/uclibc/Linux?

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Soekris Net4801



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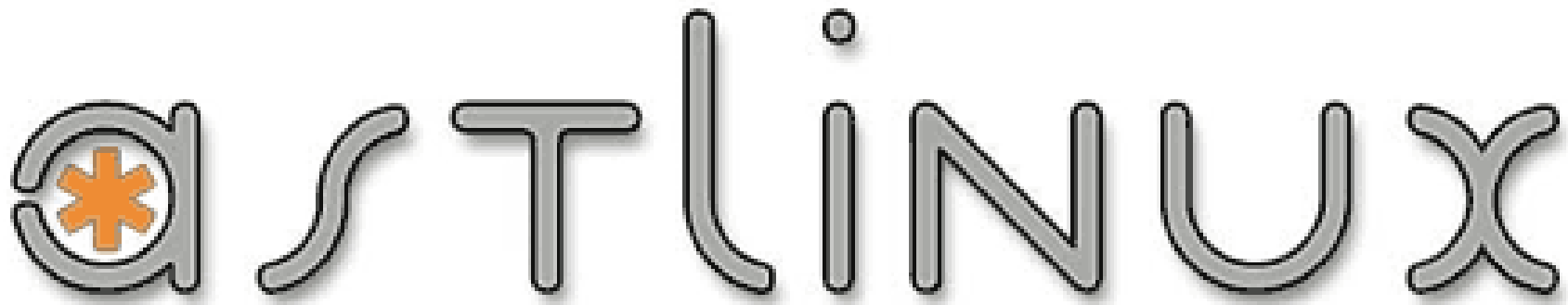
Gumstix

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Practical Applications

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- Customer edge device
- Nat traversal (SIP -> IAX2)
- Small PSTN gateway
- Custom VoIP product development

The logo for astlinux, featuring the letters 'a', 's', 't', 'l', 'i', 'n', 'u', and 'x' in a stylized, outlined font. The letter 'a' is unique, containing an orange asterisk-like symbol inside its circular shape.

Want to go beyond binary?

- More flexibility
- More software
- Different hardware
- Better testing

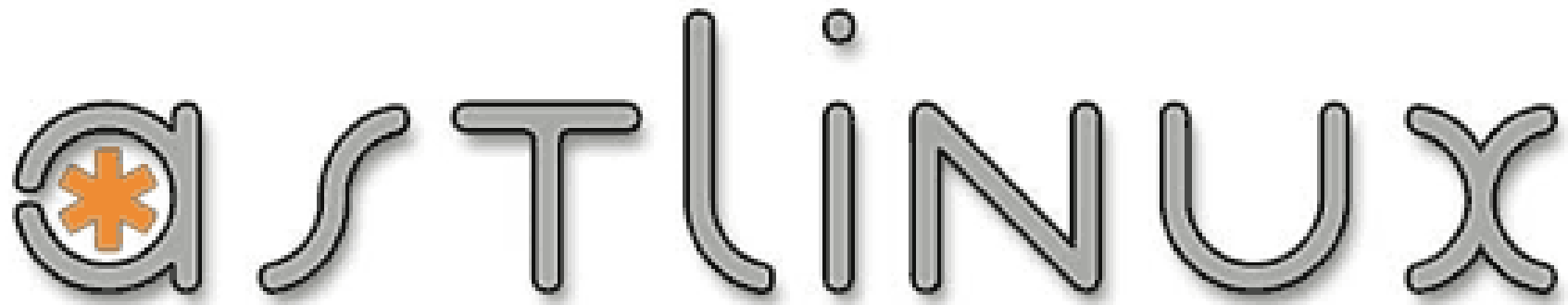
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AstLinux Development Environment

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Extra available software

- OpenSER
- X.org



Embedded Development Made Easy

- Checkout from subversion
- “make”
- Take a nap

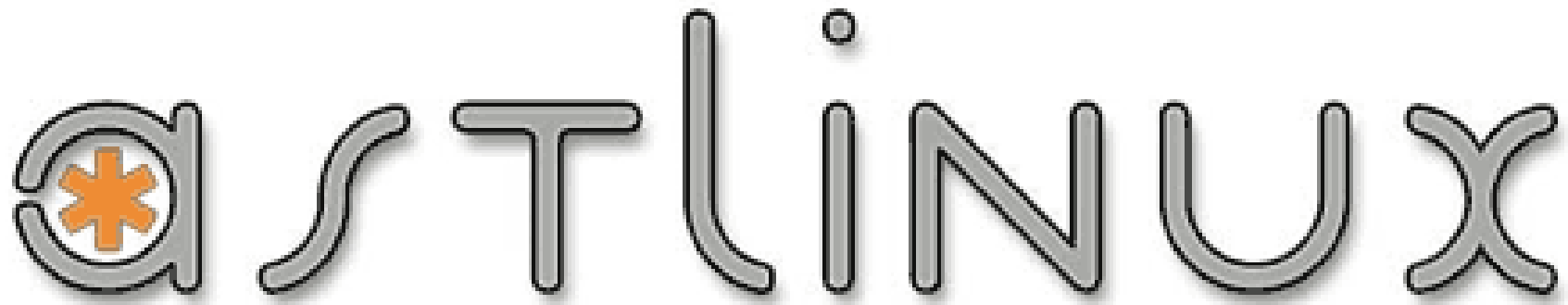
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Meanwhile...

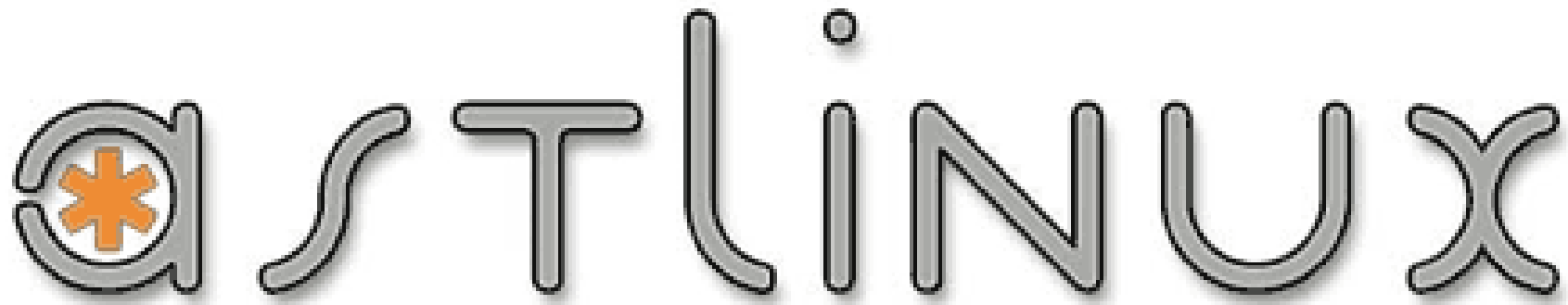
- Process configuration
- Download sources
- Patch sources (if needed)
- Compile (and compile, and compile, and...)
- Install

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Some time later...



You will have a complete AstLinux root filesystem in the buildroot directory. The build size varies, but it can range from 10mb – 70mb (depending on package/feature selections, of course)



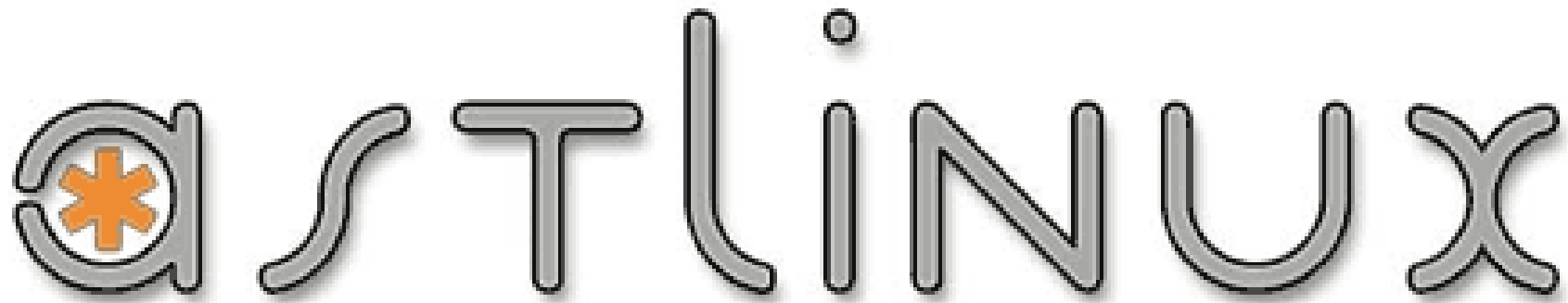
Adding software

- 95% Makefiles
- Check first! (OpenWRT, etc)
- Borrow anything else (GPL v2)
- Send me patches!

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To Do:

- x86_64, PPC targets
- R2



AstLinux: Contact Information

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Ask me questions!