



# ARMchairPBX

An end-user-friendly Public Broadcast Exchange (PBX)  
running on ARM-based Single Board Computers (SBC's).

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## – Design Document –

ARMchairPBX, proof-of-concept  
Document Revision 0

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# ARMchairPBX: Proof-of-Concept



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# ARMchairPBX: Proof-of-Concept



## 1 Definition of Scope

- simple PBX functionality out-of-the-box
- extremely user friendly (must be usable by a person without technical knowledge)
- blocking of scam calls with invalid numbers/known bad numbers



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## 2 Already Existing Alternatives

- raspbx, but no longer maintained
- building from scratch



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# 3 Requirement Analysis

## 3.1 Hardware

- all SBC's, not only Raspberry Pi
- later: own ATA?

## 3.2 Operating System

- Raspberry Pi OS: raspbx based upon, good hardware compatibility, good package manager/repos, repo version of asterisk deprecated, new compilation not working, officially only works on Raspberry Pi, no cross-compiling
- DietPi: efficient/lightweight system, available for a lot of SBC's, nice to configure, not access to all repos, non-standard package manager, no cross-compiling
- Manjaro: available for a lot of SBC's, good package manager, good access to repos, cross-compilation via Manjaro Architect, asterisk/FreePBX not available, compilation instructions outdated, cross-compilation buggy

## 3.3 Software

- asterisk
- FreePBX: powerful tool, but too complicated - develop own, simple solution for testing



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# 4 Pre-Project Roadblocks



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# 5 Goals for Proof-of-Concept



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# 6 Project Timeline