Advanced Call Progress Analysis with Asterisk
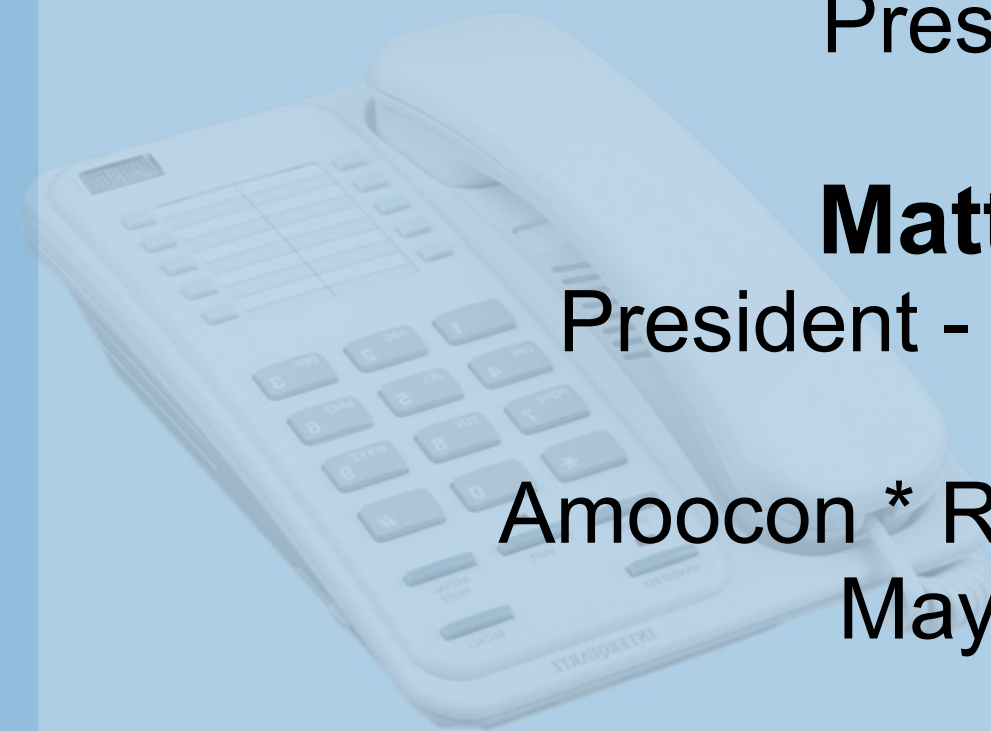
Presented by

Matt Florell
President - ViciDial Group
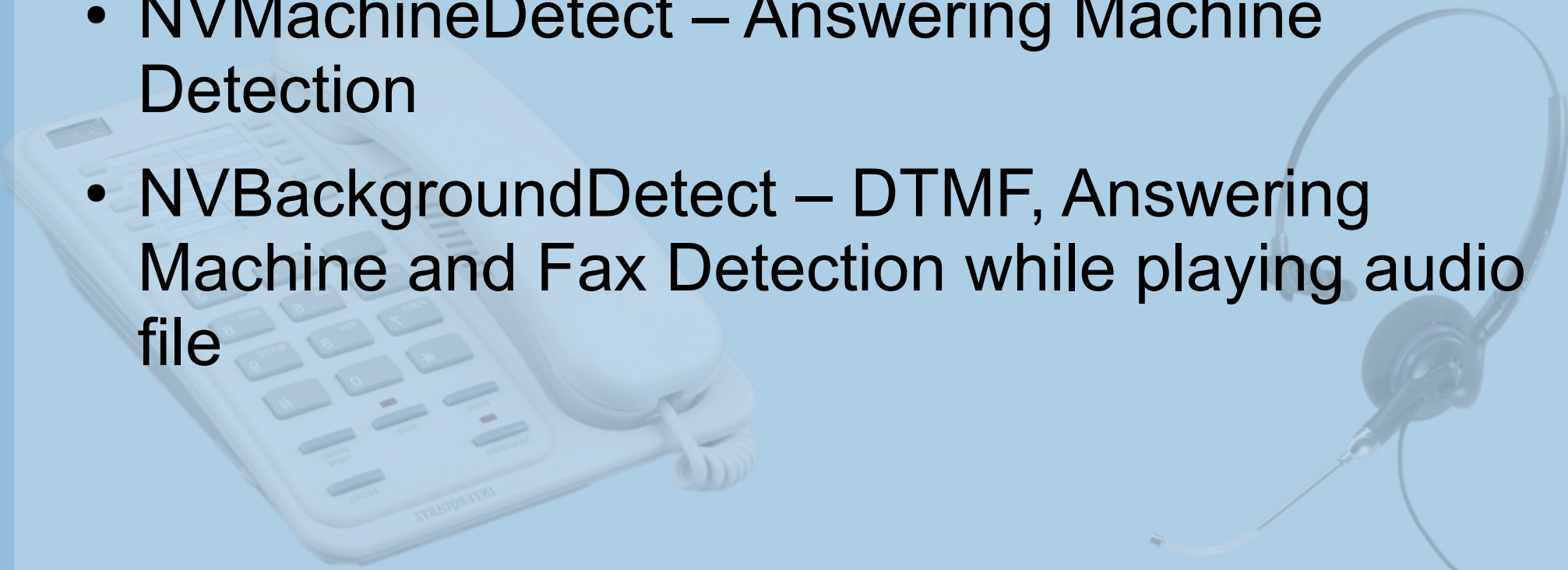
Amoocon * Rostock, Germany
May 5, 2009

Asterisk Built-in Detection Options:

- app_amd – Answering Machine Detection

- Waitforsilence – Silence Detection

- NVFaxDetect – Fax Detection

- NVMachineDetect – Answering Machine Detection

- NVBackgroundDetect – DTMF, Answering Machine and Fax Detection while playing audio file

Limitations of Built-in Options

- Analysis happens as part of the call path

- Analysis requires extra time to work

- Only analyze for one thing at a time

- AMD 70-80% accuracy

- The "NV" apps can have some build issues on newer versions of Asterisk

Sangoma CPD
(Call Progress Detection)

- Algorithm based upon speech analysis methodology

- CPD server acts as a SIP proxy

- Need to patch Asterisk chan_sip to output messages in Asterisk Manager API

- Requires Windows server to run (Linux version in development)

- Licensed per concurrent channel
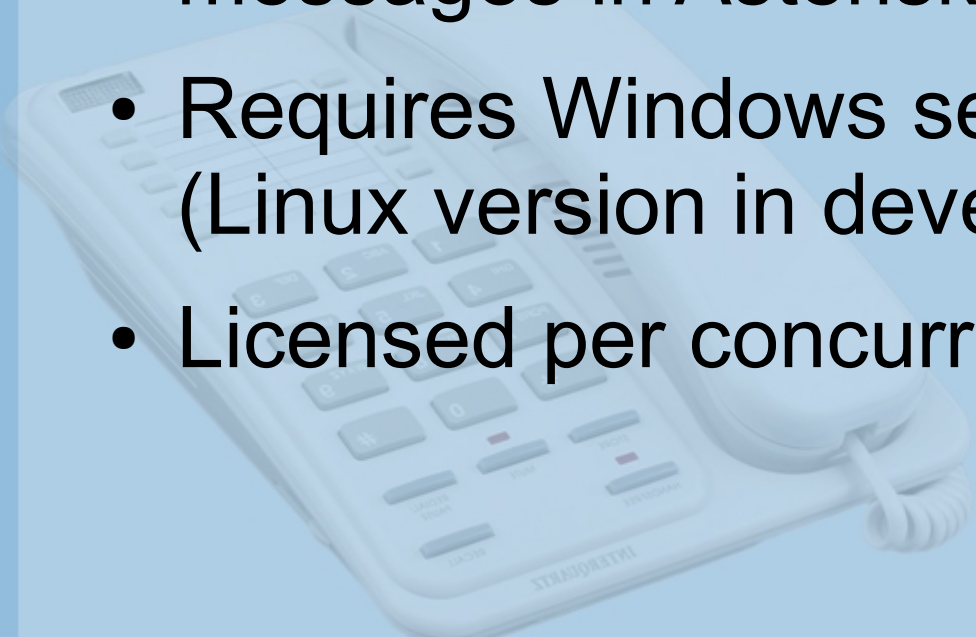
Sangoma CPD Benefits

- No added server load in Asterisk

- Analysis is parallel and transparent to the Asterisk call process

- Faster analysis time than built-in options

- Can analyze early media

- Up to 90-95% accuracy on AMD detection

- Answering Machine, Fax, Modem and Voice detection at the same time
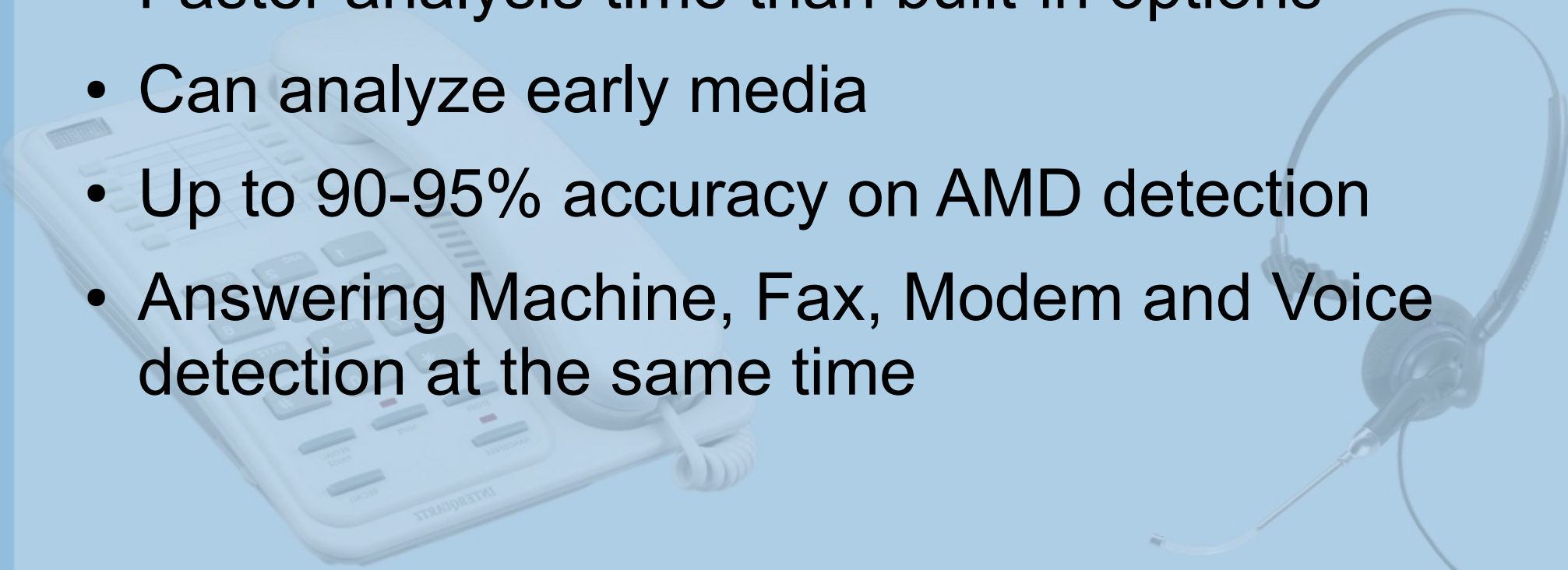
Sangoma CDP output

- SIP/2.0 200 OK

- Via: SIP/2.0/UDP myvicidialbox:5060;branch=z9hG4bK49801c76;rport=5060

- Contact: "Paraxip NetBorder"<sip:NetBorder@callanalyzerIP:5060>

- To: <sip:customerphone@voipprovider;cpd=on>;tag=9d760064

- From: "V0423183024000821749"<sip:0000000000@myvicidialbox>;tag=as029393dd

- Call-ID: 15a056c75534941064612ead5c6c0a8c@myvicidialbox

- CSeq: 102 INVITE

- Allow: INVITE, ACK, CANCEL, OPTIONS, BYE, INFO

- Content-Type: application/sdp

- Content-Length: 261

- CPD-Result: Voice
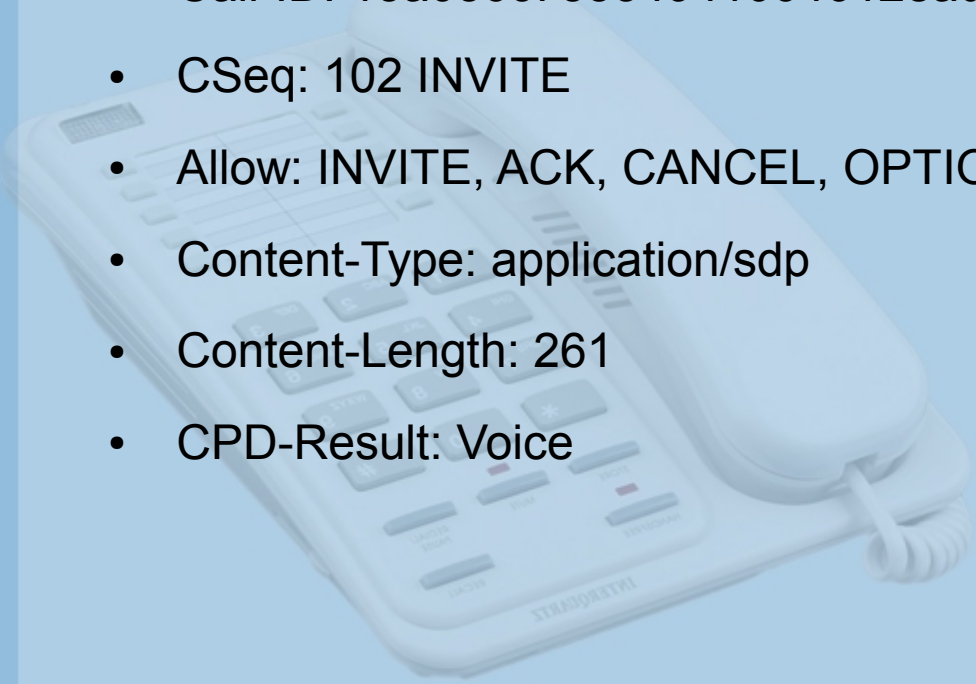
Asterisk Integration

- Patch to chan_sip to take SIP messages and output the results to Manager API as Events

- ViciDial listens to the Manager API and stores the results for the calls in a database table

- If call is waiting for an agent or has just been answered and result comes back as Answering Machine, then it can be hung up on or sent to a pre-recorded message
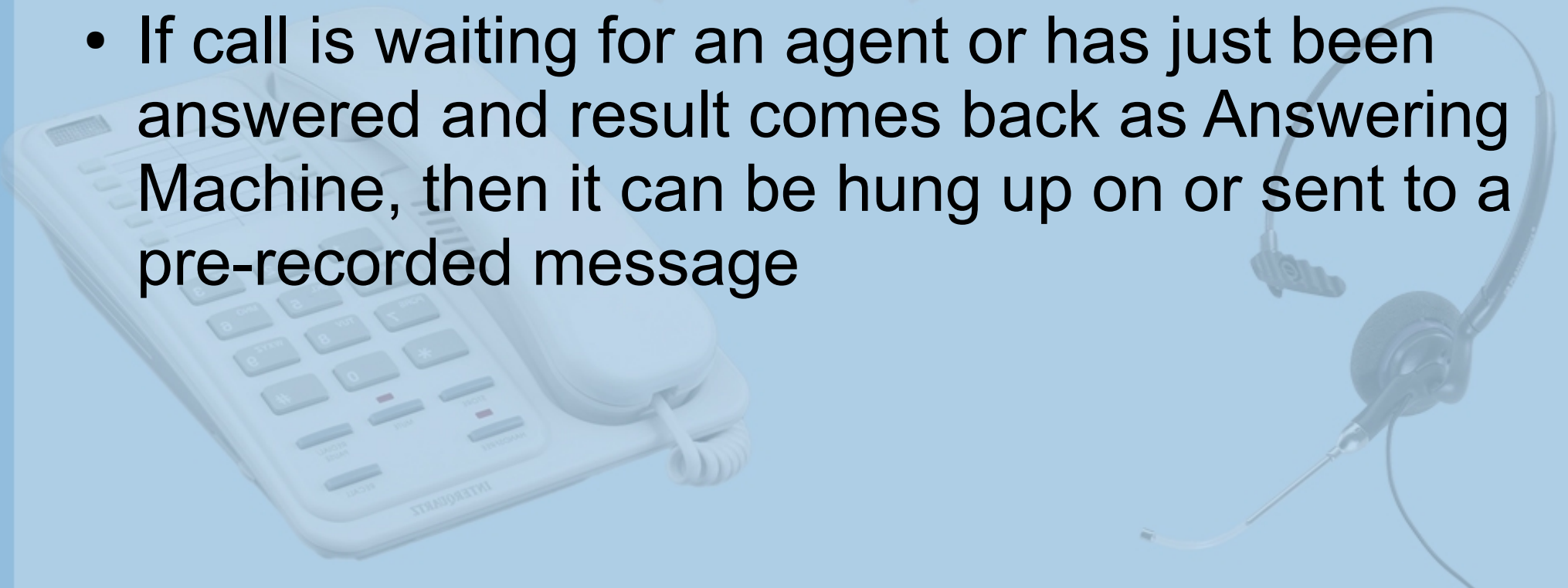
Benefits to ViciDial Users

- Lowered Answered/Drop percentage, which is very important to USA FTC calling regulations

- Very fast AMD to lower the number of Answering machines sent to agents

- Reduced processing time compared to Asterisk AMD

- Reduced CPU load because the AMD process is taking place on another machine
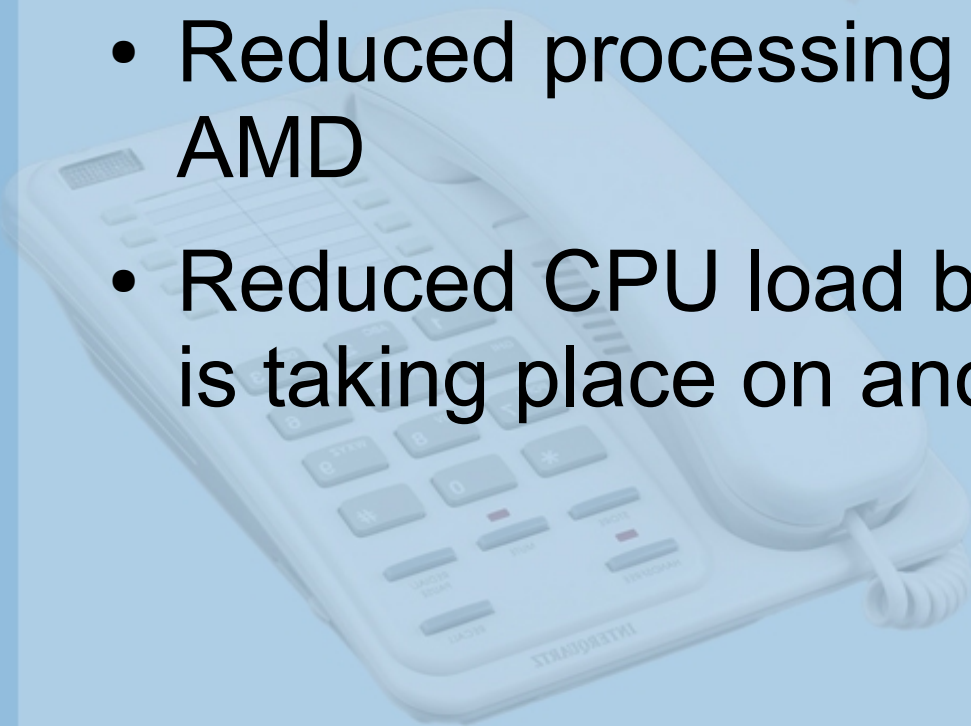
For the Future...

- Linux version of NetBorder

- Additional detection options

- ViciDial-generated reports for output

- Option for redirection of Faxes to fax destination

Thank you!

For more information, go to:

www.sangoma.com

astguiclient.sf.net/Sangoma_CPD.html