AO EXCELENTÍSSIMO SENHOR PREGOEIRO DA COMPANHIA DE GÁS DO ESPÍRITO SANTO – ESGÁS – SR. GERALDO DE MIRANDA NUNCES FILHO.

Pregão Eletrônico nº PESG020/2022

Processo de Licitação nº 5000202022

Objeto: Contratação de empresa especializada em fornecimento de solução de telefonia IP, bem como implantação, manutenção e suporte da central de PABX e seus dispositivos terminais na modalidade OPEX

Assunto: Contrarrazões ao recurso apresentado contra à decisão que declarou vencedora do certame a empresa **3CORP TECHNOLOGY INFRAESTRUTURA DE TELECOM LTDA.**

A **3CORP TECHNOLOGY INFRAESTRUTURA DE TELECOM LTDA.**, inscrita sob o CNPJ nº 04.238.297/0001-89, por intermédio de seu representante legal infra-assinado, localizada na Alameda Oceania, nº 56, Polo Empresarial, Tamboré, SP, CEP: 06543-308, com fulcro na Lei nº 13.303/2002, Lei nº 10.520/2020 e Lei Complementar nº 123/200, vem tempestivamente e respeitosamente apresentar suas **CONTRARRAZÕES** ao **RECURSO** interposto pela empresa **BETTA SOLUÇÕES DE ATENDIMENTO LTDA.**, em face da decisão que a declarou vencedora, conforme seguem:

1) DA TEMPESTIVIDADE

A presente resposta ao recurso é tempestiva, uma vez que a empresa recorrente apresentou o recurso até o dia 20/09/2022 (terça-feira) e considerando o prazo para apresentação das contrarrazões de até 3 (três) dias úteis a contar do término do prazo do recorrente, o prazo se esgotará no dia 23/09/2022 (sexta-feira), portanto, verifica-se a sua tempestividade, conforme subitem 10.1do Edital.

RECEBIDO EM:
23/09/2022
Companhia de Gás do Espírito Santo
16:54 hrs.

AO EXCELENTÍSSIMO SENHOR PREGOEIRO DA COMPANHIA DE GÁS DO ESPÍRITO SANTO – ESGÁS – SR. GERALDO DE MIRANDA NUNCES FILHO.

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2) PRELIMINARMENTE

Ao elaborar a proposta, a **3CORP TECHNOLOGY INFRAESTRUTURA DE TELECOM LTDA.,** fez no mais estrito cumprimento aos princípios gerais do Direito, atendendo aos preceitos que regem as licitações públicas e sociedades de economia mista, no que tange a modalidade de licitação denominada pregão, na forma eletrônica, além de garantir a observância dos princípios da impessoalidade, da moralidade, da igualdade, da economicidade, da vinculação ao instrumento convocatório, da obtenção de competitividade e do julgamento objetivo, previstos no artigo 31 da Lei nº 13.303/2016.

Conforme alegações a seguir, a Recorrida **3CORP** demonstrará que a decisão do Sr. Pregoeiro e de sua equipe de apoio foi assertiva, pois fundamentada em princípios basilares da licitude e de acordo com o disposto no Edital referente ao Pregão em comento.

3) DOS FATOS E DOS FUNDAMENTOS JURÍDICOS

Após regular certame licitatório, a empresa **3CORP**, apresentou seu melhor lance no montante de R$ 206.000,00 (duzentos e seis mil reais), restando classificada em 1º lugar, e a empresa Recorrente em 3º lugar com o melhor lance de R$ 359.183,00 (trezentos e cinquenta e nove mil cento e oitenta e três reais).

Contudo, irresignada com a derrota, sobretudo porque não apresentou o melhor preço para que fosse possível contratar com a Administração, a Recorrente **BETTA SOLUÇÕES DE ATENDIMENTO LTDA.,** interpôs o presente recurso, meramente protelatório, já que suas razões são nitidamente improcedentes, esvaziadas de qualquer argumento, mesmo conhecendo que houve diligência durante a análise da proposta da Recorrida.

Logo, por qualquer ângulo que se observe, outra conclusão não se chegará, a não ser que o recurso da Recorrente é totalmente protelatório, sem fundamento técnico e que visa apenas retardar o processo, e como via de consequência, a decisão deve ser pela improcedência.

Desta forma, podemos notar que o Recurso Administrativo, *data máxima vênia,* foi edificado sobre base movediça.

Com fundamento nas contrarrazões anexas, requer ainda seja desprovido o recurso interposto pela Recorrente, eis que manifestamente improcedente. Caso não seja esse o entendimento do Sr. Pregoeiro e sua Comissão de Licitação, requer que seja encaminhada à autoridade competente superior para a decisão final.

4) DAS CONTRARRAZÕES RECURSAIS

Inicialmente a Recorrente, tomada pelo seu inconformismo, já que após a fase de lances não conseguiu apresentar o melhor valor, busca por meio de rasa e infundada alegação atrasar e tumultuar o processo, uma vez que coloca em xeque as práticas realizadas pelo Sr. Pregoeiro e sua equipe técnica, alegando:

4.1) Do suposto não atendimento ao subitem 6.3.1.17

Conforme determina expressamente no Memorial Descritivo no subitem:

"6.3. Aparelho Telefônico IP – Avançado
6.3.1. Os aparelhos telefônicos IP deverão ser fornecidos pela CONTRATADA, homologados pela ANATEL e possuir as características mínimas abaixo:
(...)
6.3.1.17. Implementar os CODECS de voz conforme padrão G.711 (a-law e u-law), G722, G.729 (A ou AB), e Opus;" Destaques nossos

Aduz a Recorrente **BETTA SOLUÇÕES DE ATENDIMENTO LTDA.**, que na documentação do produto indicado pela Recorrida não há indicação dos padrões dos CODECS de voz, não atendendo assim o requisito do subitem 6.3.17 do Memorial Descritivo, o que restará provado que a suposição não procede.

A Recorrida informa que é possível utilizar os seguintes codecs no aparelho 8088 Smart Deskphone:

- Codec G.711 que é o mais representativo na tecnologia VoIP, tanto no métodos de compressão de chamados µLaw (utilizado principalmente nos Estados Unidos) e aLaw (utilizado nos demais países).

- Codec G.729 que é muito popular é o G.729, pois ele possui baixa largura de banda (apenas 8kbps) e alta carga de processamento. A taxa de compressão baixa deste codec é uma grande vantagem em relação ao codec G.711, isso é obtido através de algoritmo complexo exigindo um grande poder de processamento.

- Codec G.722 que utiliza de uma técnica que aumenta a faixa de amostragem para 50Hz até 7kHz, provendo melhor qualidade do áudio. Este codec é ofertado pelos principais fabricantes de equipamentos para telefonia VoIP, sendo considerado um codec da família HD Voice (voz em alta definição).

De forma complementar, anexamos o documento "tg0065en-ed02_8082_my_ic_phone_and_8088_smart_deskphone_troubleshooting_guide.pdf ", onde resta evidenciado a utilização dos codecs, utilizando como exemplo os comandos para verificação de parâmetros globais de RTP que serão usados, cujas informações estão na página 22 (vinte e dois) do documento, vejamos:

3.3.9.9 Global rtp configuration (media rtp)

This command is useful to check the global rtp parameters which will be used (codec payload duration, dtmf telephonic events payload type, ...).

```
$ media rtp
#media#
tos=46
RFC2198 enable=0
dtmf telephony event  payload type=97
dtmf redundant header payload type=96
AMR payload type=117
G722 WB BitRate=2
AMR WB BitRate=2
codec=G.711 PCMU
vocoders[0].payload_ms=20
vocoders[0].silence_compression_onoff=0
codec=G.711 PCMA
vocoders[1].payload_ms=20
vocoders[1].silence_compression_onoff=0
codec=G.729 AB
vocoders[2].payload_ms=20
vocoders[2].silence_compression_onoff=0
codec=G.722 ADPCM 64k
vocoders[3].payload_ms=20
vocoders[3].silence_compression_onoff=0
codec=G.722.2 AMR WB
vocoders[4].payload_ms=20
vocoders[4].silence_compression_onoff=0
media OK
```

Ainda sobre os codecs de áudio wideband, são aceitos em ambos os protocolos, OPUS e G722, tendo como objetivo o suporte da família HD Voice (voz em alta definição).

Desta maneira, reiteramos que o aparelho 8088 Smart Deskphone atende aos principais codecs, com destaque para o wideband G.722 com Áudio HD Voice, e consequentemente atendemos ao item 6.3.1.17.

4.2) Do suposto não atendimento ao subitem 6.3.1.18

Conforme determina expressamente no Memorial Descritivo no subitem:

"6.3. Aparelho Telefônico IP – Avançado
6.3.1. Os aparelhos telefônicos IP deverão ser fornecidos pela CONTRATADA, homologados pela ANATEL e possuir as características mínimas abaixo:
(...)
6.3.1.18. Possuir câmera integrada com resolução de, no mínimo, 780p;"

Novamente, alegam o não atendimento ao subitem 6.1.1.18 do Memorial Descritivo, no qual exige a câmera integrada com resolução de 1080p.

O aparelho 8088 Smart Deskphone possui uma câmera embutida de alta definição, com codificação de vídeo progressivo, onde cada quadro é uma representação codificada de um quadro de vídeo.

De forma complementar, anexamos o documento "oxe-um-8088-smart-deskphone-r200-8al90333enaa-2-en.pdf", com descritivo do aparelho telefônico onde na página 06 (seis) resta ilustrado a câmera de vídeo HD embutida com obturador.

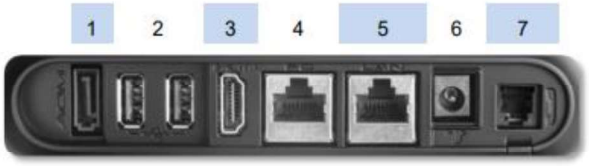
1.1 Phone description

1	Sensitive LCD wide screen with ambient light sensor.
2	Embedded HD Video camera with shutter. Swipe the shutter right or left to use or hide the camera. This feature depends on the model of your telephone.
3	Permanent feature keys: quick access to the phone's main features.
4	Bluetooth® handset for optimized communication. A wired handset is also available and can replace the Bluetooth® handset.
5	Wideband loudspeaker for optimized sound.
6	LED Arrival of a new call (Flashing).
7	An adjustable and stable foot.
8	3.5 mm and 4 pin stereo headset jack.
9	Microphone.

Adicionalmente o aparelho possui uma vasta gama de conectores, que podem ser utilizadas para adicionarmos dispositivos externos, o que pode ser visto na página 07 (sete) e 14 (quatorze), onde constam informações dos conectores USB e HDMI consequentemente.

1.2 Description of the connectors

Various connections to allow phone extensions.



1	Add-on module connector (SATA type).
2	Two Universal Serial Bus (USB) ports (1.1/2.0) to connect an external camera, audio equipment, a low smartphone charger or USB stick.
3	HDMI® 1.4 output for screen replication and for dedicated HD video display.
4	10/100/1000 Mbps Ethernet connectors to a PC (RJ45).
5	10/100/1000 Mbps Ethernet connectors to the enterprise network (LAN - RJ45).
6	DC power jack for an external power adaptor.
7	Wired handset connector (RJ9).

1.8 HDMI connector

Your set is equipped with an HDMI 1.4 output for a better video experience.

The 8088 Smart DeskPhone can be connected to a large screen or video projector. Moreover, an external camera can be connected to the phone to broadcast the entire room. Your deskphone can easily find its place in a meeting room.

There are two ways to use the HDMI connector:

- Broadcast the video conversation (HD capability).
- Broadcast the entire display of the phone.

Your set has to be connected to the appropriate equipment.

Broadcast the video conversation (HD capability)

- Use one of the following:
  - During the video conversation, swipe up on the video displayed on the phone to broadcast it to the equipment connected via HDMI.
  - To stop the broadcast, swipe down on the video displayed on the phone.

Select the HDMI button.

Com base nas informações citadas, sobre a tecnologia embarcada no equipamento, informamos que o aparelho atende ao item 6.1.1.18.

4.3) Do suposto não atendimento ao subitem 7.4.2.2

Conforme determina expressamente no Memorial Descritivo no subitem:

"7.4. Segurança

(...)

***7.4.2.2. Deverá utilizar o protocolo SRTP para criptografia da mídia nos terminais de comunicação, utilizando o padrão AES com chaves de 256 bits**." Destaques nossos*

Alega a Recorrente que o modelo ofertado não possui compatibilidade com criptografia de voz, protocolo SRTP, com chaves de 256 bits.

O equipamento OmniPCX Enterprise é de alta escalabilidade e a Alcatel-Lucent, ciente da importância da segurança da informação e visando uma operação correta, atende ao padrão criptográfico aprovado pelo FIPS que pode ser utilizado para proteger os dados eletrônicos.

O Algoritmo criptográfico Advanced Encryption Standard (AES) é atendido integralmente através das chaves de 128 e 256 bits.

Reiteramos através do documento "omnipcx-enterprise-communication-server-datasheet-en.pdf", que a conjunção dos itens de segurança e criptografia evidenciados na página 04 (quatro), garante a segurança das informações do sistema de telefonia, vejamos:

Security

Authentication

- Local or external RADIUS
- IEEE 802.1X TLS1.2
- Integrated audit tool to assess security management
- LDAPS authentication for OXE SIP Device Management

Traffic filtering

- Communication Server
  - ¬ Trusted hosts file
  - ¬ TCP wrapper function
- ALE DeskPhones
  - ¬ ARP spoofing protection
  - ¬ PC port switch VLAN filtering

Encryption for management

- SSHv2 for secure sessions (such as Telnet, FTP)
- TLS1.2 for secure HTTP session
- LDAPS for directory access

Native encryption

- Client/device confidentiality (signaling protocol and media)
- DTLS 1.2 with AES 256 and SRTP with AES 128
  - ¬ 100% software based
  - ¬ SHA2 certificate authentication
  - ¬ ALE Enterprise and Essential DeskPhones (IP), IP Desktop Softphone
  - ¬ GD4/GD3/INTIP3/OMS and PCS
  - ¬ DTLS scalability with External Encryption Gateway
  - ¬ IP-XBS DECT encryption
  - ¬ Rainbow WebRTC Gateway encryption
  - ¬ OmniPCX Record encryption
- TLS 1.2 with AES 256 and SRTP with AES 128
  - ¬ SIP trunks
- Migration from IP Premium Security Encryption

Adicionalmente anexamos o documento "opentouch-sbc-datasheet-en.pdf", já que o OpenTouch Session Border Controller faz parte da composição da solução e abaixo evidenciamos a negociação das chaves AES 128 e 256 no protocolo de transporte seguro em tempo real (SRTP).

Security

- Miercom certified
- Distributed denial of service (DDOS) prevention: L3/L4 and SIP
- SIP stateful inspection: Prevents DDOS attacks based on fraudulent SIP messages
- SIP topology hiding: SIP headers that disclose internal IP topology are removed or modified
- Secure SIP over Transport Layer Security (TLS) (SIPS): Encryption and authentication of SIP messages, SIP over WSS for WebRTC
- Secure Real-time Transport Protocol (SRTP): Encryption of audio and video streams SDES and DTLS crypto key negotiation (AES 128/256)
- Dynamic audio and video port firewall pinholing
- Signature based SIP Intrusion Detection System (IDS) and dynamic blacklisting
- SIP authentication (http digest) of clients and gateways
- Enhanced media latching
- Integrated NGINX Light Reverse Proxy

Com base nas informações acima citadas sobre a tecnologia embarcada no equipamento e segurança do sistema, reiteramos que atendemos integralmente ao subitem 7.4.2.2.

4.3) Do suposto não atendimento ao subitem 7.9.5.4

Conforme determina expressamente no Memorial Descritivo no subitem:

"7.9. Licença de Usuários

(...)

7.9.5.4. Efetuar e receber chamadas de vídeo ponto a ponto com codec H.264. Para as chamadas de vídeo, deverá implementar as resoluções: 480p, 720p e 1080p. A resolução Full HD deverá estar disponível para desktop;" *Destaques nossos*

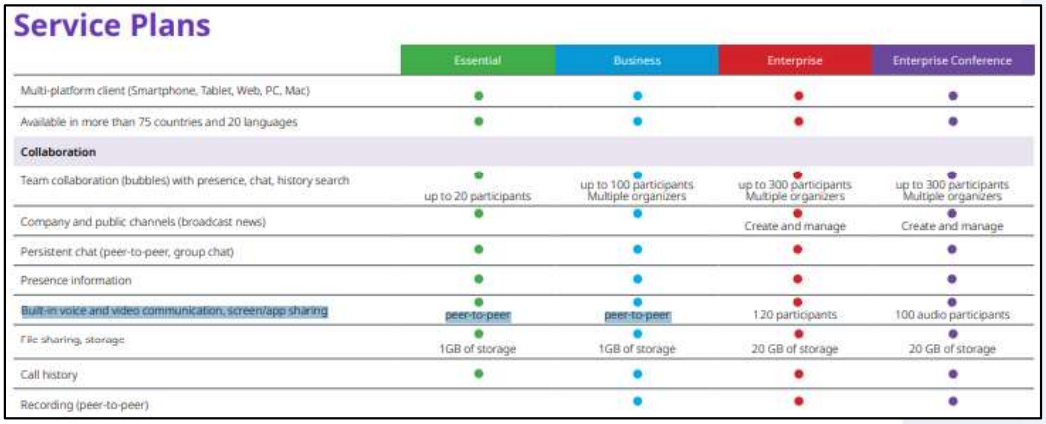
Aduz a Recorrente que o produto não é capaz de suportar 1080p de resolução.

Porém, a solução de comunicação ofertada, qual seja "Rainbow" conta atualmente com os seguintes codecs para comunicação WebRTC P2P:

- OPUS para áudio

- VP8 ou H.264 para compartilhamento de vídeo e tela,

Os codecs WebRTC são capazes de acelerar dinamicamente tanto a resolução quanto as taxas de bit. E com relação a resolução máxima das comunicações ponto a ponto (P2P), reiteramos através dos documentos anexados inicialmente "rainbow-solutionsheet-en.pdf" e "Rainbow Network Requirements - 2019 07 11 - Ed13.pdf", que os vídeos tanto no mobile, quanto no desktop são de alta definição.



Service Plans

	Essential	Business	Enterprise	Enterprise Conference
Multi-platform client (Smartphone, Tablet, Web, PC, Mac)	●	●	●	●
Available in more than 75 countries and 20 languages	●	●	●	●
Collaboration				
Team collaboration (bubbles) with presence, chat, history search	● up to 20 participants	● up to 100 participants Multiple organizers	● up to 300 participants Multiple organizers	● up to 300 participants Multiple organizers
Company and public channels (broadcast news)	●	●	● Create and manage	● Create and manage
Persistent chat (peer-to-peer, group chat)	●	●	●	●
Presence information	●	●	●	●
Built-in voice and video communication, screen/app sharing	● peer-to-peer	● peer-to-peer	● 120 participants	● 100 audio participants
File sharing, storage	● 1GB of storage	● 1GB of storage	● 20 GB of storage	● 20 GB of storage
Call history	●	●	●	●
Recording (peer-to-peer)		●	●	●

Com base nas informações citadas e documentação técnica enviada inicialmente, os codecs e resolução do Rainbow atendem as especificações e consequentemente ao subitem 7.9.5.4.

4.3) Do suposto não atendimento ao subitem 7.11.10

Conforme determina expressamente no Memorial Descritivo no subitem:

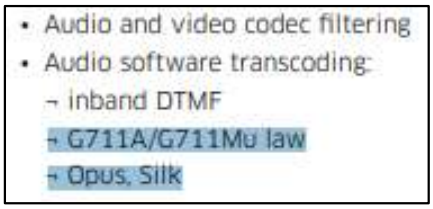
"7.11. Licença de Session Border Controller

(...)

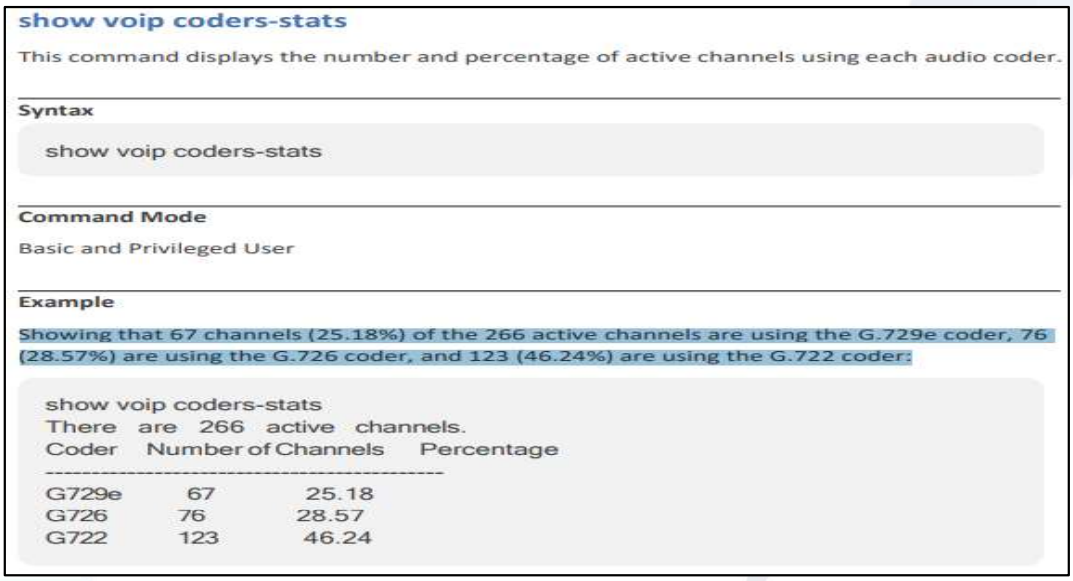
7.11.10. Possibilitar chamadas de voz com CODECS de voz segundo as normas ITU-T G.711 (a-law e u-law), G722, G.729 A ou AB, e Opus;." *Destaques nossos*

A Recorrente informar que a solução de controle de sessão de borda ofertada não suporta o codec G.722 e G.729.

O OpenTouch Session Border Controller atende aos codecs mencionados e inicialmente evidenciamos o atendimento dos codecs G.711A/G.711 Mu Law, através da imagem capturada do datasheet "opentouch-sbc-datasheet-en.pdf", página 02 (dois), trecho Interoperability and protocols, abaixo em destaque:



Deste modo, reiteramos o atendimento dos codecs G.722 e G.729, que são evidenciados através do documento enviado inicialmente e novamente anexado "otsbc2.x_am_CLI_Reference_Guide_8AL90542USAE_2_en.pdf", inclusive, como exemplo exibimos um comando que exibe o número e porcentagem de canais ativos usando cada tipo de codificador de áudio, o que pode ser conferido na página 85 (oitenta e cinco), abaixo em destaque:



show voip coders-stats

This command displays the number and percentage of active channels using each audio coder.

Syntax

show voip coders-stats

Command Mode

Basic and Privileged User

Example

Showing that 67 channels (25.18%) of the 266 active channels are using the G.729e coder, 76 (28.57%) are using the G.726 coder, and 123 (46.24%) are using the G.722 coder:

```
show voip coders-stats
There are 266 active channels.
Coder    Number of Channels    Percentage
-------------------------------------------
G729e          67                25.18
G726           76                28.57
G722          123                46.24
```

Com base nas informações citadas e documentação técnica enviada inicialmente, entendemos que os codecs do SBC e consequentemente o subitem 7.11.10 é atendido integralmente.

4.4) Do suposto não atendimento ao subitem 7.11.16.3

Conforme determina expressamente no Memorial Descritivo no subitem:

"7.11. Licença de Session Border Controller

(...)

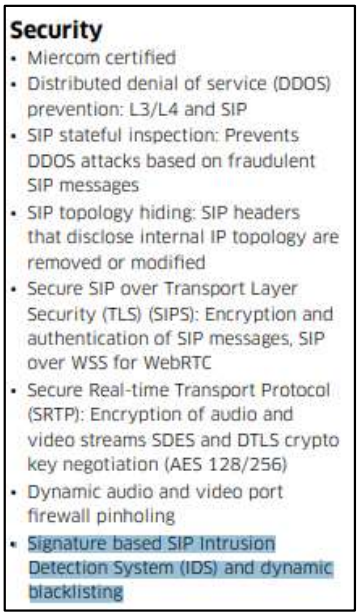
7.11.16.3. IPS (intrusion prevention systems);" *Destaques nossos*

A Recorrente informa que a solução de controle de sessão de borda ofertada não suporta o recurso de prevenção à invasão IPS.

Porém, o OpenTouch Session Border Controller está preparado para ciberataques e a Alcatel-Lucent, ciente da importância da segurança da informação e visando uma operação correta, conseguirá impedir intrusões através da composição dos seus itens de segurança.

Será realizado pelo Sistema de Detecção de Invasão (IDS) a análise e monitoração do tráfego da rede, em busca de sinais de eventuais invasores que sejam uma ameaça para se infiltrar roubo de dados. Assim como, a comparação de atividade da rede atual a um banco de dados de ameaças conhecida para detectar vários tipos de comportamento, como violações de políticas de segurança, malware e verificações de portas.

Assim, evidenciamos o atendimento através da imagem capturada do datasheet "opentouch-sbc-datasheet-en.pdf", página 02 (dois), trecho Security:



Security

- Miercom certified
- Distributed denial of service (DDOS) prevention: L3/L4 and SIP
- SIP stateful inspection: Prevents DDOS attacks based on fraudulent SIP messages
- SIP topology hiding: SIP headers that disclose internal IP topology are removed or modified
- Secure SIP over Transport Layer Security (TLS) (SIPS): Encryption and authentication of SIP messages, SIP over WSS for WebRTC
- Secure Real-time Transport Protocol (SRTP): Encryption of audio and video streams SDES and DTLS crypto key negotiation (AES 128/256)
- Dynamic audio and video port firewall pinholing
- Signature based SIP Intrusion Detection System (IDS) and dynamic blacklisting

Sobre o Sistema de Prevenção de Intrusões (IPS), este está situado na mesma área da rede que um firewall, entre o mundo externo e a rede interna. E na composição da solução este recurso será atendido.

Com base nas informações citadas e documentação técnica enviada inicialmente, concluímos que os requisitos de segurança do sistema do SBC e consequentemente o subitem 7.11.16.3 é atendido.

4.5) Do suposto não atendimento ao subitem 7.11.16.8

Conforme determina expressamente no Memorial Descritivo no subitem:

"7.11. Licença de Session Border Controller

(...)

7.11.16.8. Prover facilidades de controle de acesso como lista branca e lista negra dinâmica." *Destaques nossos*

Supõe a Recorrente que a solução de controle de sessão de borda ofertada só suporta lista branca.

O OpenTouch Session Border Controller possui controle de acesso e evidenciamos o atendimento da lista negra dinâmica (dynamic blacklisting) através da imagem capturada do datasheet “opentouch-sbc-datasheet-en.pdf”, página 02 (dois), trecho Security:

Security

- Miercom certified
- Distributed denial of service (DDOS) prevention: L3/L4 and SIP
- SIP stateful inspection: Prevents DDOS attacks based on fraudulent SIP messages
- SIP topology hiding: SIP headers that disclose internal IP topology are removed or modified
- Secure SIP over Transport Layer Security (TLS) (SIPS): Encryption and authentication of SIP messages, SIP over WSS for WebRTC
- Secure Real-time Transport Protocol (SRTP): Encryption of audio and video streams SDES and DTLS crypto key negotiation (AES 128/256)
- Dynamic audio and video port firewall pinholing
- Signature based SIP Intrusion Detection System (IDS) and dynamic blacklisting

Adicionalmente, através de exemplos de comandos de configuração de tabela de políticas de mensagem e tabela de classificação, evidenciamos o funcionamento da lista branca e negra, ou seja, de ambas, através do documento "otsbc2.x_am_CLI_Reference_Guide_8AL90542USAE_2_en.pdf", páginas 391 (trezentos e noventa e um) e 413 (quatrocentos e treze), vejamos:

message-policy

This command configures the Message Policies table, which lets you define SIP Message Policy rules.

Syntax

```
(config-voip)# message message-policy <Index>
(message-policy-<Index>)#
```

Command	Description
Index	Defines the table row index.
body-list	Defines the SIP body type (i.e., value of the Content-Type header) to blacklist or whitelist.
body-list-type {policy-blacklist|policy-whitelist}	Defines the policy (blacklist or whitelist) for the SIP body specified in the 'Body List' parameter (above).
max-body-length	Defines the maximum SIP message body length.
max-header-length	Defines the maximum SIP header length.
max-message-length	Defines the maximum SIP message length.
max-num-bodies	Defines the maximum number of bodies (e.g., SDP) in the SIP message.
max-num-headers	Defines the maximum number of SIP headers.
method-list	Defines SIP methods (e.g., INVITE\BYE) to blacklist or whitelist.
method-list-type {policy-blacklist|policy-whitelist}	Defines the policy (blacklist or whitelist) for the SIP methods specified in the 'Method List' parameter (above).

Syntax

```
(config-voip)# sbc classification <Index>
(classification-<Index>)#
```

Command	Description
Index	Defines the table row index.
action-type {allow|deny }	Defines a whitelist or blacklist for the matched incoming SIP dialog.

Com base nas informações citadas e documentação técnica enviada inicialmente, reiteramos o pleno atendimento aos requisitos de white e black list, logo, ao subitem 7.11.16.8.

Note-se que a Recorrente apresentou tempestivamente a proposta técnica solicitada pela ESgás, e ainda, enviou a carta emitida pela fabricante Alcatel-Lucent com o fito de comprovar a qualidade de revendedora autorizada para venda de todos os produtos, licenças, sobressalentes e acessórios na solução de comunicação unificada RAINBOW, OmniPCX Enterprise, OTEC, Switches (LAN), Pontos de Acesso (WLAN), entre outras soluções do nosso portfólio, com capacidade de realizar serviços de projeção, instalação, implantação, ativação, manutenção, atualização e suporte técnico nas soluções ofertadas, possuindo certificação *"Expert Business Partner"* em Business Telephony Unified communications, Collaboration/Conferencing.

De modo, que diligências foram realizadas, a fim de sanar eventuais dúvidas e para verificar a exigibilidade, conforme prevê o artigo 2º da Lei 13.303/2016.

É totalmente notório o desespero da Recorrente pela busca em apenas tumultuar e postergar o processo, visto que em seu recurso ela sequer informa ou descreve os motivos do suposto não atendimento dos itens referenciados, isto, conclui-se, mais uma vez que as informações são infundadas, uma vez que não existem argumentos plausíveis para comprovação contraria ao atendimento da solução ofertada.

Dessa forma, ratificamos o pleno atendimento ao Edital e nos comprometemos a cumprir todos os serviços a serem executados, conforme todas as exigências Editalícias.

Como se vê, os argumentos da Recorrente são meramente protelatórios, já que desprovidos de fundamentos e elementos aptos a comprovar as suas alegações. Assim, demonstrando total competência da equipe da ESGás ao analisar toda a documentação exigida em Edital. Uma vez que o órgão contratante aceitou e habilitou a proposta e documentação técnica, causando espanto que a licitante Recorrente tente desacreditar a capacidade de análise do Sr. Pregoeiro e de sua equipe, mesmo após a ocorrência de diligência.

Ora digníssimo Pregoeiro e sua Equipe de Apoio, requer que preze pelo zelo e empenho em guardar o caráter isonômico do procedimento, respeitando os Princípios da Legalidade, da Impessoalidade, da Moralidade Administrativa, entendemos, com toda *vênia,* que a **3CORP** atende todos os requisitos do Edital, não devendo se quer prosperar o Recurso interposto pela Recorrente, com base no que aqui estamos exaustivamente demonstrando.

5) DO MÉRITO

Restou-se evidente que a Recorrente tem como intuito tumultuar o processo, fazendo alegações de descumprimento às exigências do Edital pela Recorrida, o que ficou demonstrado ser improcedente, vez que restou demonstrado que há integral cumprimento as disposições do Edital e seus anexos, passando assim a buscar alegações desprovidas e infundadas para tentar desclassificar a empresa vencedora e desacreditar a decisão da comissão de licitação deste estimado órgão, o que não merece prosperar.

É pacífico na melhor doutrina pátria que, se por um lado a vinculação ao instrumento convocatório constitui princípio basilar das licitações, não menos verdadeiro é que tal vinculação é instrumental, constituindo ferramenta posta à disposição do Administrador, bem como dos interessados, para assegurar o fim que se busca obter, qual seja, a busca do melhor negócio para a Administração.

A desclassificação de uma proposta somente ocorrerá na verificação de erro que comprometa a exequibilidade do objeto. A tendência do direito tem sido a de relevar aspectos redundantes e formais que provoquem a desclassificação de empresas idôneas.

> "*TC 000.175/95-1: Que no julgamento de contas e na fiscalização que lhe incumbe, o TCU decidirá não só quanto a legalidade e legitimidade, mas também sobre a economicidade dos atos de gestão praticados pelos responsáveis sujeitos à sua jurisdição (cf. art. 1º, § 1º, da Lei nº 8.443/92)*"

Inquestionável que as alegações trazidas são facilmente superadas com a análise correta da proposta, não podendo de modo algum constituir motivo suficiente para reforma da decisão proferida.

Nota-se pela fragilidade dos argumentos, que a irresignação recursal da Recorrente tão somente relevando a vontade de frustrar ao certame, buscando apenas tumultuar o procedimento licitatório por meio de argumentos as quais tem conhecimento de que não prevalecem, seja no TCU, no Judiciário ou na doutrina, inclusive cita decisões contraria a sua tese.

Vale ressaltar que a Recorrente demonstra, nada mais do que um estranho inconformismo neste procedimento licitatório, o qual foi vencido pela Recorrida de acordo com os princípios constitucionais da legalidade, da impessoalidade, da moralidade, da publicidade e da eficiência (art. 37, CF).

Em virtude disso, a Recorrente tenta, por todos os meios, induzir a R. Comissão ao erro, tumultuando o procedimento licitatório, com o intuito de reverter a decisão exarada por essa respeitável Comissão, o que não deve prosperar.

6) DA CONCLUSÃO

De qualquer forma, ante o exposto, evidencia-se que o pedido da empresa Recorrente **não deve prosperar** visto que a **3CORP** atende plenamente aos requisitos do Edital e que o Sr. Pregoeiro agiu no mais estrito cumprimento das regras Editalícias, procedendo com lisura o processo.

7) DO PEDIDO

Por todo o exposto, requer a **3CORP TECHNOLOGY INFRAESTRUTURA DE TELECOM LTDA.**, ora Recorrida, que sejam apreciadas as contrarrazões para confirmar a decisão prolatada no processo licitatório, mantendo assim o não conhecimento do recurso da Recorrente, e que a Egrégia Comissão de Licitação rejeite o pedido formulado pela empresa **BETTA SOLUÇÕES DE**

ATENDIMENTO LTDA. negando-lhe o provimento e mantendo/confirmando a decisão que classificou a empresa **3CORP** como vencedora deste certame licitatório.

Cabendo por fim reforçar que, a decisão proferida pelo digníssimo Pregoeiro e sua Equipe de Apoio deve ser mantida, pois a **3CORP** atende todos os requisitos do Edital e seus anexos, com base no que exaustivamente foi demonstrado.

Caso contrário solicitamos que tal decisão seja submetida à autoridade superior competente.

Informamos que os documentos enviados inicialmente encontram-se no diretório https://3corp-my.sharepoint.com/:f:/g/personal/beatriz_santos_3corp_com_br/EvYL-3nqB3dAk6eYERvCBawBmO5SlzXRcz8XXh36jEdv2Q?e=HVsSEE

Termos em que, pede deferimento.

Santana de Parnaíba, 23 de Setembro de 2022.

04.238.297/0001-89
3CORP TECHNOLOGY
INFRAESTRUTURA DE TELECOM LTDA
Alameda Oceania, Nº 56,
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8088 Smart DeskPhone for huddle room

OmniPCX Enterprise

Business

User Manual

8AL90333ENAA ed02-1645

R200

The 8088 Smart DeskPhone is a high end terminal intended for use for huddle room when connected to OmniPCX Enterprise system.

With its touch screen and built-in interactive capabilities, the 8088 Smart DeskPhone can deliver the comfort and convenience you are looking for.

This model offers enhanced ergonomical features for more effective communication.

Thank you for choosing this phone.

This manual describes the services offered by the 8088 Smart DeskPhone connected to an OmniPCX Enterprise system.

The 8088 Smart DeskPhone can be provided with or without an embedded camera. All video features described in this manual are available with the 8088 Smart DeskPhone with camera or if you have connected an external camera to the phone.

The availability of some functions described in this manual may depend on the version or configuration of your system.
The labels and icons presented in this document are not contractually binding and may be modified without prior warning. The pictures are not contractually binding and are not localized.

Alcatel·Lucent Enterprise

Alcatel·Lucent Enterprise

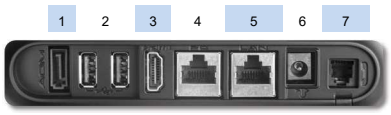
1 Getting to know your telephone

1.1 Phone description

1	Sensitive LCD wide screen with ambient light sensor.
2	Embedded HD Video camera with shutter. Swipe the shutter right or left to use or hide the camera. This feature depends on the model of your telephone.
3	Permanent feature keys: quick access to the phone's main features.
4	Bluetooth® handset for optimized communication. A wired handset is also available and can replace the Bluetooth® handset.
5	Wideband loudspeaker for optimized sound.
6	LED Arrival of a new call (Flashing).
7	An adjustable and stable foot.
8	3.5 mm and 4 pin stereo headset jack.
9	Microphone.

1.2 Description of the connectors

Various connections to allow phone extensions.



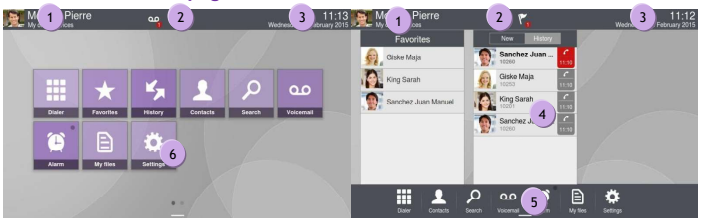
1	Add-on module connector (SATA type).
2	Two Universal Serial Bus (USB) ports (1.1/2.0) to connect an external camera, audio equipment, a low smartphone charger or USB stick.
3	HDMI® 1.4 output for screen replication and for dedicated HD video display.
4	10/100/1000 Mbps Ethernet connectors to a PC (RJ45).
5	10/100/1000 Mbps Ethernet connectors to the enterprise network (LAN - RJ45).
6	DC power jack for an external power adaptor.
7	Wired handset connector (RJ9).

1.3 Permanent features keys

They are located just below the touch screen.

	Mute key. During a call, press this key to stop your contact from hearing you. As long as the mute feature is activated, the mute key stays lit (blue). Press this key to deactivate the mute feature.
	Turn down the volume.
	Turn up the volume.
	Answer an incoming call or make a call (keypad) in hands free mode (the key is blue). During a conversation, the first press opens the audio taster. The next press switches between handsfree, handset and audio accessories mode.
	Ignore incoming call. Hang up the ongoing call.
	Show or hide the keypad. During conversation use the keypad to send DTMF signals.
	Use this key to consult the call log. This key is lit when you have received a new voicemail or a missed call. During conversation, press this key to take you back to the call screen.
	Open user settings and information (logs of telephony services, routing management, video self-view). This key is lit when your device is not routed.
	Return to the homepage at any time.

1.4 About the homepage



Homepage in standard mode

Homepage in business mode (Business)

Choose your homepage

- *Settings* › *Application* › *Homepage*
- *Business* › if enabled, the phone displays homepage in business mode otherwise in standard mode.

1 **Personal area**

This area displays information about the user's phone and configuration, including last name, first name, avatar, and routing. The colored bar under your photo/avatar shows your present status.

Routing profile	Access programming and configuration of routing profiles.
User Information	Information about the user: lastname, firstname, phone number,...
Video	Pressing this menu item starts the self video on your phone. You can then adjust the camera.

2 **Notifications area**

In idle state: This area displays information on the latest phone events, such as missed calls and voice messages.
During a call: Call status (ongoing, on hold, incoming call) is shown in this area. Pressing this area during a call takes you back to the call screen.

Call status

	Incoming call.		Ongoing video call.
	Ongoing call.		Video call on hold.
	Call on hold.		

3 **Date, time and connectivity area**

This area displays time, date, connectivity and customization information (wake-up on, intercom mode on).

	USB Accessory or storage device connected to USB port.
	Bluetooth® device pairing in progress.
	Bluetooth® device connected (Other than your Bluetooth® handset).
	Headset plugged in.
	Alarm programmed.
	Silent ring activated.
AUTO	Interphony (See chapter: Receiving intercom calls).
	External camera plugged in. (white color).
	Video running.
	Identity secrecy activated.
	Upgrade download. All features of the set are available during the upgrade. This icon is displayed until the upgrade is complete.
VoIP	No VoIP connection. Communication is not possible. For more information, contact your installer or administrator.
	This icon appears when you are not connected to the data server (safe mode, authentication failed or problem with the server). All features are unaccessible. You can still call using the dialpad.
	No ethernet link

4 **Active area**

This area is reserved for running applications and for previews of applications selected by the user.
When you start an application, it is displayed in the active zone. If no application has been launched, the active zone displays the application previews that you have preset on the homepage. An application preview allows you to view this application information and easily access it.
Applications that can be previewed are: History, Favorites, Dial-pad.

Add or delete an application in the active area

- *Settings* › *Application* › *Homepage*
- Select the application that you want to add to the homepage or delete from the homepage (History, Favorites, Dial-pad).
- Activate or deactivate preview of the application (yes or no).

Back to homepage.

5 **Applications bar (**Homepage in business mode).

This area allows access to all applications and to different features of the running application.

6 **Applications area** (Homepage in standard mode).

You can access your phone applications from this area. Press the application button to access the application. Once you run an application, the display is the same as the business mode display.
Programmable keys are available in this mode. (See: Programming a direct shortcut for a contact.).

	Make a call.		To access voice mail functions.
	Open the dial keypad to make a conversation.		This application contains favorite contacts that you have selected from your list of contacts. Call a contact from the favorites application.
	Search for a contact.		Make a call using your list of contacts.
	Access the settings menu.		This application is for synchronizing your address book and agenda between your phone and your PC Microsoft® Outlook application.
	This application allows you to manage audio files and images.		Set an alarm.
	The history application shows two tabs, listing new phone events such as missed calls, and older phone events.		

1.5 Navigation

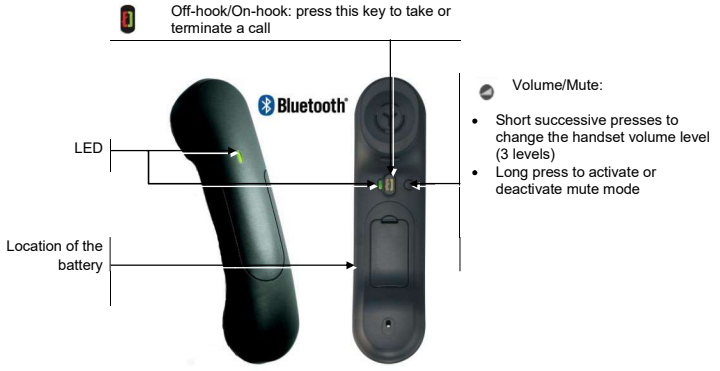
The phone set homepage can be viewed in standard or advanced mode.
Scroll your finger up or down to get the page or menus scrolling vertically (in advanced mode), or scroll right or left to get the page scrolling horizontally. (in standard mode only).

Homepage in standard mode

Homepage in business mode (Business)

Make your selection by pressing the right icon on the sensitive screen.	
In standard mode, personalize the homepage by pressing and holding.	
Scroll through the application area pages (advanced mode) or the application bar (business mode). In standard mode only, you can have up to 2 pages.	
Scroll the list (call log, contacts...).	
First press: back to the previous homepage page. Second press: back to the first homepage page.	
This dark greyed circle symbolizes the current page (default skin).	
This light greyed circle symbolizes another available page (default skin).	

1.6 Bluetooth® Wireless handset



If the Bluetooth® handset is on its base, you do not need to press the Off-hook/On-hook key to take or terminate the call. Just off-hook/on-hook the Bluetooth® handset.

LED indication when using the handset (paired)

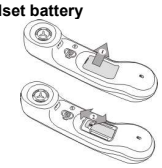
- Off: operating normally.
- Green flashing: in communication.
- Green steady: handset charging.
- Orange flashing: battery charge low or handset outside coverage zone.
- Orange steady: malfunction.

The 3-note tone indicates that the handset has been installed correctly (the LED flashes green or orange depending on the battery charge level).

Installing or replacing the Bluetooth® handset battery

① Lift up the battery cover

② Slide out the battery holding part



The battery recharges when the Bluetooth® handset is on its base.

1.7 Install a comfort wired handset

You can install a wired handset in place of the Bluetooth® Wireless Handset.

- Remove the rubber.
- Plug-in the wired handset to the appropriate connector (refer to phone description).
  Make sure you position the cable correctly in the compartment intended for that purpose:
- Switch off the Bluetooth® Wireless Handset (press and hold the On/Off hook key until you hear two distinct tones).

1.8 HDMI connector

Your set is equipped with an HDMI 1.4 output for a better video experience.

The 8088 Smart DeskPhone can be connected to a large screen or video projector. Moreover, an external camera can be connected to the phone to broadcast the entire room. Your deskphone can easily find its place in a meeting room.

There are two ways to use the HDMI connector:

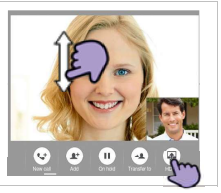
- Broadcast the video conversation (HD capability).
- Broadcast the entire display of the phone.

Your set has to be connected to the appropriate equipment.

Broadcast the video conversation (HD capability)

- Use one of the following:
  - During the video conversation, swipe up on the video displayed on the phone to broadcast it to the equipment connected via HDMI.
  - To stop the broadcast, swipe down on the video displayed on the phone.

Select the HDMI button.

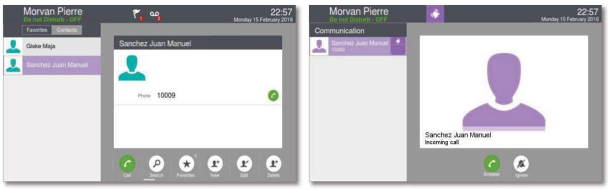


Broadcast the entire display of the phone

To broadcast the entire display of the phone or stop the broadcast, you have to activate or deactivate this feature:

- *Settings*
- *Device* › *Display* › *Clone display to HDMI*
- Activate or deactivate the HDMI output
- Back to homepage.

2 Using your telephone



2.1 Making a call

- Use one of the following:
  - Dial directly the number for your call.
  - Lift the receiver › Enter the destination number.
  - Press the on-hook/off-hook key of the Bluetooth® device. (Bluetooth® Wireless handset) › Dial the destination number.
  - *Dialer.* Dial the destination number.
  - Use the dialpad preview to dial the destination number (Homepage in business mode).
  - Hands free › Dial the destination number.
  - Programmed line key.
  - Search by name.
- Press the call icon to call your contact.

To make an external call, dial the outside line access code before dialing your contact number.The default outside-line access code is usually 0. However, please check this code with your installer.

End the call

- Use one of the following:
  - Hang up the handset.
  - Press on the On-hook key on the permanent features keys panel.
  - On-hook key on the Bluetooth® handset.

2.2 Make a call using the personal phone book (Contacts)

- *Contacts*
- Select the contact to call » Information regarding your contact is displayed on the screen.
- Press the call icon to call your contact.

If there are several numbers for the same contact, select the desired number.

2.3 Using call by name

- *Search*
- Enter the first letters of your contact name.
- » The names of contacts matching your search criteria are automatically displayed on the screen.
- Call your contact by choosing him/her in the list.
- If you wish you can also display your contact complete file.

When searching by name, results are displayed showing all matching names followed by first names. You can also search by initials. Type the initials of first name and surname, separated by a space. All first names/names matching these initials will be displayed in the search.

2.4 Call from call log (History)

All incoming, outgoing, missed or unanswered calls are displayed in the call log.
You can call back from your phone call log.

- Access the call log by pressing the Communication key.
  - Select the tab: *History* » All call logs are displayed.
  - Select the tab: *New* » Only new missed calls are displayed.
- Use one of the following:
  - Giske Maja 10253 Call your contact directly by selecting the badge.
  - Select the contact to call.

    Answered outgoing call

    Unanswered outgoing call
- *Callback*

If there are several numbers for the same contact, select the desired number.

2.5 Call back one of the last numbers dialed

- Open the dialpad.
- Select the contact to call in the list of last number dialed.
- Press the call icon to call your contact / Call your contact directly by selecting the badge.

2.6 Redialing the last number dialed (redial)

- Open the dialpad.
- Select twice to call the last number dialed.

2.7 Call a contact from the favorites application (Favorites)

Favorites: This application contains favorite contacts that you have selected in your personal directory.

- Use one of the following:
  - *Favorites*
  - *Contacts*
    Select the tab: *Favorites.*
- All contacts defined as a favorite are displayed.
- Select the contact to call.
- *Call*

If there are several numbers for the same contact, select the desired number.

Refer to chapter: "Define a contact as a favorite ".

2.8 Answer the call

- Use one of the following:
  - *Answer*
  - Take the handset off the hook.
  - Handsfree key.
  - Off-hook key on the Bluetooth® handset.

End the call

- Use one of the following:
  - Hang up the handset.
  - *End call*
  - On-hook key on the Bluetooth® handset.

2.9 Ignore call

A call is received:

- Use one of the following:
  - *ignore*
  - Press on the On-hook key on the permanent features keys panel.
- Your phone no longer rings but your caller still hears the ringing tone.

You can still answer the call after you have ignored it.

2.10 Using the telephone in 'Hands free' mode

You are in communication.

- Handsfree key:
  - Press on the handsfree mode.
  - The handsfree mode is activated.

When the handfree is activated, the corresponding feature key is lit blue.

To take the call back with the handset

- Use one of the following:
  - Take the handset off the hook.
  - If the handset is off hook: Press the 'handsfree' key again › Handset.
  - Off-hook key on the Bluetooth® handset.

To go back to 'handsfree' mode

- Press the 'handsfree' key again › Press on the handsfree mode.
- You can hang-up the handset.

2.11 Adjust ringer volume while a call arrives

- The telephone rings when a call is received.
- Decrease volume.
- Increase volume.

2.12 Adjust the loudspeaker and the handset volume

- During a call, to adjust the volume level of the loudspeaker or receiver:
- Decrease volume.
- Increase volume.

2.13 Mask my identity

You can hide your identity before sending your call.

- Use one of the following:
  - Select the feature .
  - Press your information area in the top left corner of the screen.
- *User Information*
- Press on anonymous icon to activate or deactivate the secret identity.
- Back to homepage.

2.14 Contact call log

You can display the history of all calls (received calls, missed calls, and so on).

- Access the call log by pressing the Communication key.
  - Select the tab: *History* ❯❯ All call logs are displayed.
  - Select the tab: *New* ❯❯ Only new missed calls are displayed.
- Select the appropriate tab.
- Select the recipient from the call log.
- Your contact's details are displayed on the screen along with the history of all his/her calls (missed calls, received calls, voicemail, etc.).

2.15 Delete one call log event

- Access the call log by pressing the Communication key.
- Select tab: *History*
- Press the desired event:
- *Delete*

2.16 Delete events from the call log

- Access the call log by pressing the Communication key.
- Select tab: *History.*
- *Delete all*
- Confirm deletion of all call log events: *Yes.*

If your call log contains unread events, a warning message is displayed on the screen.
If a filter is activated, you will only be able to delete events sorted by the filter.

2.17 Consulting your voice mailbox

Usually a non answered call is automatically forwarded to the voicemail box.

	You are notified of a new voicemail message (notification zone). The number of new voice messages is displayed.

- Use one of the following:
  - Press the voicemail messages notification button in the top middle area of the screen.
  - On the homepage, press the voice mail key.
- Enter the password to access the visual voice mail.
- Follow the instructions of the voice guide.

2.18 Immediate forward to a number

The number can be your home, mobile, voice mailbox or an internal extension (operator, etc.).

- Use one of the following:
  - Press the User services key.
  - Press your information area in the top left corner of the screen.
- *Routing profile*
- *Immediate forward to...*
- Number of diversion telephone.
  You can also enter a number via the search by name feature, the list of contacts, the history, the favorites or the latest dialed number.
  ( ).
- Confirm.
- Forward is activated (The forward key lights blue if configured so in: *Settings ❯ Device ❯ Phone configuration ❯ Routing Led)*
  The activated feature is indicated in your personal information area in the top left corner of the screen.

The forward key is not lit when no forward is activated.
When you create a forward, it will be added to the list of available forwards so that you can reuse it.
If a number or user is defined, just select the line to activate the forward.

2.19 Immediate forward to voice mailbox

- Use one of the following:
  - Press the User services key.
  - Press your information area in the top left corner of the screen.
- *Routing profile*
- *Immediate forward to voicemail*
- Forward is activated (The forward key lights blue if configured so in: *Settings* › *Device* › *Phone configuration* › *Routing Led)*.
  The activated feature is indicated in your personal information area in the top left corner of the screen.

The forward key is not lit when no forward is activated.
When you create a forward, it will be added to the list of available forwards so that you can reuse it.

2.20 Routing profile

Call routing lets you to choose which devices will ring when you receive an incoming call.

Select a routing profile

- Use one of the following:
  - Press the User services key.
  - Press your information area in the top left corner of the screen.
- *Routing profile*
- Select a routing profile in the list.

Create a new routing profile

- Use one of the following:
  - Press the User services key.
  - Press your information area in the top left corner of the screen.
- *Routing profile*
- *Add*
- Select the forward type to program: *Immediate forward, Forward if busy, If no reply, If busy/no reply.*
- Select the destination of the forward: Associate, Attendant, Mobile, Voicemail, Other.
- Save the routing profile › the new routing profile is added to the list of available forwards.

Modify a routing profile

- Use one of the following:
  - Press the User services key.
  - Press your information area in the top left corner of the screen.
- *Routing profile*
- *Modify*
- Modify a routing profile.
- Save the routing profile.

Delete a routing profile

- Use one of the following:
  - Press the User services key.
  - Press your information area in the top left corner of the screen.
- *Routing profile*
- *Delete*
- Delete a routing profile.
- Confirm.

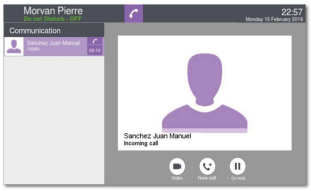
You can not delete a predefined routing profile.

2.21 Set an alarm

- *Alarm*
- Enter the alarm time.
- Select the melody of your choice.
- Adjust the alarm volume.
- Enable the feature.
  ›› The associated LED is on: the feature is enabled.
  ›› The icon is displayed (connectivity information zone).

When the alarm bell rings, you can choose to repeat the alarm or turn it off.

3 During a conversation



3.1 Putting a caller on hold

- You are in communication:
- *On hold*

» Your call is placed on hold.
Your caller hears on-hold music or a tone until you pick the call up again.

Recover the call on hold

- Use one of the following:
  - Select the caller on hold from the call log or the notification area.
  - *Retrieve*
- You are back on the call with your caller.

3.2 Calling a second person during a conversation

- You are in communication.
- *New call*
- Call the second person.
- *Call* » The first call is on hold.

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3.3 Receiving a second call

- During a conversation, another person is trying to call you » Name or no. of the caller displayed for 3 seconds. Your are alerted with 3 beeps.
  - *Answer call* » The first call is on hold.
  - Ignore incoming call.

To return to your first caller and end the conversation in progress:

- End the call. Use one of the following:
  - Press on the On-hook key on the permanent features keys panel.
  - On-hook key on the Bluetooth® handset.
- Recover the call on hold. Use one of the following:
  - Select the caller on hold from the call log or the notification area.
  - *Retrieve*

3.4 Switching between calls (Broker call)

- You are in communication with a first caller.
  A second caller is on hold.
- Switch from one caller to another by selecting the caller on hold in the call log.
- You are in communication with the second contact: First call is automatically placed on hold.

3.5 Transferring a call

You are in communication with a first caller.

- You want to transfer the call to another contact.
- Call the recipient of the transfer.
  You can directly call the person by dialing his/her number, select the person to call from the call log, or use the search by name feature to call the second person.
- You can transfer the call immediately or wait for your contact to answer before transferring the call
- *Transfer* » The two callers are connected.

You are in communication with a first caller. A second caller is on hold.

- You want to connect the first caller with the second.
- *Transfer*
- The two callers are connected.

3.6 Mute, so that your caller cannot hear you

During the call, you do not wish your caller to hear you.

- Use one of the following:
  - Press your phone Mute key.
    Mute mode is activated (The key is blue).
    Your caller can no longer hear you.
    Press the key again to go back to normal mode.
  - Press and hold the Mute key of the Bluetooth® Wireless handset.
    Press the key again to go back to normal mode.

3.7 Voice frequency

During a conversation you sometimes have to send DTMF signals, such as with a voice server, an automated attendant or a remotely consulted answering machine.

If DTMF is activated by default on your system

- *Dialer*
- Enter the requested codes.

If DTMF is not activated by default on your system

- *DTMF*.
- Enter the requested codes.

The function is automatically cancelled when you hang up.
Depending on the system configuration, the DTMF can be activated by default. For more information, contact your installer or administrator.

3.8 Setting Auto volume

This feature allows the phone to control the in-call audio volume and ensure a constant audio volume.

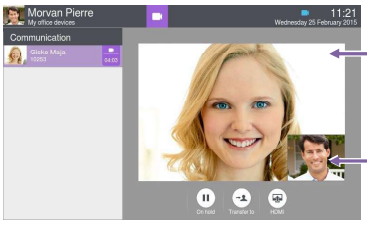
You are in communication.

- Handsfree key:
  - Press the auto volume feature key.
    ›› The phone controls the in-call audio volume.

4 Video call

4.1 Video call

To use this feature, both your phone and your caller's phone must have the feature enabled. The phones must also be able to handle video.
During a video call, the screen comprises two areas. The main screen shows your callers video and the 'picture in the picture' screen in the bottom right of the main screen shows your video.



4.2 Start a video call

A video call can be started only once you are in audio conversation with your caller.

- *Call*
  Call your caller.
  ›› Your caller answers, you are in audio communication.

Make sure that your contact's phone supports video calls.

- Press the video icon displayed below your caller details to start the video call.
- The call status in the notification area is changed once you start the video call.
- Once you start the video call, your caller sees the video sent by your phone. He/She is invited to press the 'picture in the picture' screen to start the video call.

You can handle a video conference by joigning a scheduled video conference.

4.3 Mute/unmute the video call

During a video call, either person can freeze video transmission. Audio transmission is not frozen.

- Press anywhere on the 'picture in the picture' on the screen to mute your video. Your caller will no longer see your video.
- Press anywhere on the 'picture in the picture' on the screen to unfreeze the video. Your caller can now see your video.

The 'picture in picture' can be hidden. In order to mute or unmute your video, the 'picture in picture' must be displayed on your phone.

4.4 Hide/Show the 'picture in picture'

You can choose to hide or show the 'picture in picture'.

- Long press or double tap on the main video screen or the 'picture in picture' to hide or show the 'picture in picture'.

When you hide the 'picture in picture' only the video from your contact is displayed.

4.5 Display video in fullscreen mode

- Press anywhere on the main video screen to display the video in fullscreen mode.
- Press anywhere on the main video screen to display the video in normal mode.

4.6 Receiving a second call

Answering a second call during a conversation

If you answer the incoming call, the ongoing video and audio call are put on hold. Retrieve the video call on hold the same way as an audio call. During your conversation with the second call, your contact, who is on hold, can see your contact details.

- When you are on a video call, the video is stopped when you transfer the call.
- When you start recording the call, the video is stopped (only audio communication is recorded).

Ignoring a second call:

- When you ignore a second call the video communication is normally continued.

5 Contacts management

5.1 Define a contact

- *Contacts*
- *Add new contact*
- Fill in the contact file.
  You must provide at least a last name.
- *Back*
- Your contact is added to the directory.

For external numbers, we recommend you use canonical address formats comprising '+', followed by the country code (e.g. '33') then the number without the first digit. For example, for 0390670000, enter the number +3390670000. To get the '+' sign, long press on the '0' key. This example is for calling a number in France from another country.

You can associate a picture to the contact.

- Copy the picture from an USB storage device on the phone local memory.
- You can remove the USB storage device.
- Enter the following path in the picture field: /data/FileManager/ followed by the name of the picture and its extension.
- This picture will then appear on your phone each time you will be in conversation with your contact.

An external server (LDAP) may be available in your company for the contacts management. When pictures are associated to these contacts, those pictures will only be displayed when doing a dial by name.

5.2 Add a contact from the call log

- Access the call log by pressing the Communication key.
- Select the tab: *History*
- Select the caller.
- *Add*
- Fill in the contact file.
- *Back*

5.3 Make a call using the personal phone book (Contacts)

- *Contacts*
- Select the contact to call.
  » Information regarding your contact is displayed on the screen.
- Press the call icon to call your contact.

If there are several numbers for the same contact, select the desired number.

5.4 Modify a contact

- *Contacts*
- Select the contact to modify.
- *Edit*
- Change the contact file.
- *Back*

You can modify a contact while you are on a call.

5.5 Delete a contact

- *Contacts*
- Select the contact to delete.
- *Delete*
- *Yes*

5.6 Favorites

This application contains favorite contacts that you have selected in your personal directory (Address book).
Most frequently called contacts can be defined as a favorite.

- *Contacts*
- Select the contact to add to favorites.
- *Favorites*
  The contact has been added to Favorites.
  The associated key light is on.

You can call your contact directly without selecting them from the personal directory.

- *Favorites*
- Select the caller.

To remove a contact from Favorites

- *Favorites*
- Select your favorite contact.

Favorites
The feature associated led goes off.

5.7 Define a contact as a favorite (Favorites)

Most frequently called contacts can be defined as a favorite.

Favorite contacts are displayed in the application Favorites.

- *Contacts*
- Select the contact to add to favorites.
- *Favorites*
  » The contact has been added to Favorites.
  » The associated key light is on.

You can call your contact directly without selecting them from the personal directory.

- *Favorites*
- Select the caller.

To remove a contact from Favorites

- Use one of the following:
  - *Contacts*
    Select the tab: *Favorites*
  - *Favorites*
- Select the contact you wish to remove from your favorites.
- *Favorites*
  » The contact is removed from your favorites.
  » The associated key light is off.

5.8 Programming a direct shortcut for a contact.

In standard mode, you can program a direct call shortcut on your homepage.

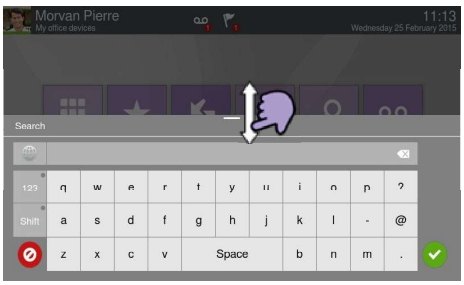
Add a shortcut key

- Press and hold on the screen to enter in the edition mode of the homepage.
- Press the available key you want to program.
- Enter the number to associate with the key by directly entering the number, using the search by name feature, or using your list of contacts.
- Validate number.
- Enter the name to associate with the key.
- Confirm the name.
- Exit the edition mode of the homepage.

Delete a direct call key on the standard homepage

- Press and hold on the screen to enter in the edition mode of the homepage.
- Delete the corresponding shortcut key.
- Confirm: *Yes.*
- Exit the edition mode of the homepage.

6 Keypad



At any time, you can show or hide the keypad by swiping up or down the bottom of the screen.

6.1 Change the keyboard type

While editing text, you can change the keyboard type to match the language you are writing: AZERTY, QWERTY, QWERTZ, Cyrillic.

- The keyboard is displayed on the screen
- Select the keypad type (AZERTY, QWERTY, QWERTZ, Cyrillic,...).
- Validate your choice.

6.2 Delete a character

When editing a text you might have to correct it.

- Place the cursor after the text to delete by touching the screen.
- Press the delete key of your keyboard.

When you edit a text, you can delete several characters at once.

- Place the cursor before the first character to delete and, keeping your finger in contact with the screen, move to the last character to delete.
- Press the delete key of your keyboard.

6.3 Write in uppercase

By default, the written characters are in lowercase.

- Shift Press this key once.
  » The next character will be written in uppercase and then you will automatically switch to lowercase.
- Shift Press this key twice. The associated key light is on.
  » Uppercase mode is used for all written characters.
- Shift To go back to lowercase mode, press the key again.
  » The associated key light is off.

6.4 Write a number

- 123 Press this key once.
  » The associated key light is on.
- Write numbers.
- 123 To go back to alphabetic mode, press the key again.
  » The associated key light is off.

7 File Manager

This application allows you to manage audio files and images.

- *My files*
- Select the file type you want:
  - *Audio*
  - *Picture*
- Select where to read the files from: files stored on the phone or on the connected USB device, or both.
- *Back*
  » All available files of the selected type are displayed.

The display time may take longer if the USB storage device contains too many files.
When using an external USB storage device, the files must be stored in a directory that has the same name as the directory name defined in Settings/Application/My files. By default, the defined name of the directory is 'My IC Phone'. If you want to change it, make sure you change it in the phone settings as well as on the USB storage device.
The directory containing audio and/or picture files on the USB external storage device must not contain more than 200 files (the files can be of any type).

7.1 Delete a file

- *My files*
- Select the file type you want:
  - *Audio*
  - *Picture*
- Enter delete mode.
  Delete
- Select the file to delete.
- Confirm deletion.
- Exit delete mode.

You cannot delete a file stored on an external device.

7.2 Copy a file from the external storage device to the phone internal memory

- *My files*
- Select the file type you want:
  - *Audio*
  - *Picture*
- *Filters*
  » Select the storage device.
- Select the file to copy.
- *Copy*

7.3 Listen to an audio file

- *My files*
- *Audio*
- *Filters*
  » Display the files for the selected storage device (The phone internal memory or external storage device).
- Select the audio file.
  » The audio file plays automatically.
  - Pause:
    Pause
  - Start listening again:
    Play
  - Stop listening:
    Stop

Supported audio formats are mp3, aac and wav.
When released from the manufacturing plant, the audio files hosted on the phone are ALE International property and can be used as is. When an installer or End-User downloads MP3 files via a USB link, they are responsible for the Intellectual Property Right requirements related to such downloads.

7.4 Play all audio files

- *My files*
- *Audio*
- *Filters:*
  » Display the files for the selected storage device (The phone internal memory or external storage device).
- *Play all:*
  » Listening of all audio files has started.
- Stop listening:
  Stop all.
- Start listening again:
  Play.
- Switch to next track:
  Next.
- Listen to tracks in random order:
  Random.

Supported audio formats are mp3, aac and wav.
When released from the manufacturing plant, the audio files hosted on the phone are ALE International property and can be used as is. When an installer or End-User downloads MP3 files via a USB link, they are responsible for the Intellectual Property Right requirements related to such downloads.

8 Advanced settings

8.1 Define the phone language

- *Settings*
- *Device* ›*Phone configuration* ›*Language*
- Select the language of your choice.
- *Ok*
- Back to homepage.

8.2 Adjusting the audio functions

- *Settings*
- *Device* ›*Audio*
- Your handset allows you to set different ring tones depending on the type of incoming call.
  - *On-site ringing*
  - *Off-site ringing*
  - *Special ringing*
  - *Event ringing*
- Select the ring to associate with each type of call.
- Validate your choice.

Ok

8.3 Activate/deactivate silent mode

- *Settings*
- *Device* ›*Audio* ›*Silent ringing*
- Enable or disable the feature.

8.4 Ring tones

- *Settings*
- *Device* ›*Audio* ›*Beeps before ringing*
  - *One beep:* One beep before ringing.
  - *Two beep:* Two beeps before ringing.
  - *Three beep:* Three beeps before ringing.
  - *No beep:* Ring without beep.
- Validate your choice.

Ok

8.5 Progressive ringing

- *Settings*
- *Settings* ›*Device* ›*Audio* ›*Ascending ringing*
- Enable or disable the feature.

8.6 Adjusting the ringer volume

- *Settings*
- *Device* ›*Audio* ›*Ringing volume*
- Adjusting the ringer volume (0 to 9).

8.7 Install a jack accessory (headset, handsfree, loudspeaker)

By default, the audio jack of your telephone can be used to connect a headset, hands-free kit or loudspeaker.
When you plug the jack accessory in the jack, a popup asks you for the type of accessory:

- *Headset*
- *Handsfree*
- *Loudspeaker*

The specific icon is displayed in the connectivity area .
If you have selected headset as the accessory type, the headset icon is displayed in the connectivity area:

If necessary, you can also select the accessory type in the audio settings:

- *Settings*
- *Device* ›*Audio* ›*Accessory type* ›*Jack*
- *Ok*

After selecting the accessory type, you must specify the jack accessory:

- *Jack accessory*
  - *Headset*
  - *Handsfree*
  - *Loudspeaker*
- *Ok*

8.8 Install an USB accessory

When you plug the accessory in the USB port, the USB accessory is automatically detected. The specific icon is displayed in the connectivity area .
If you have selected headset as the accessory type, the headset icon is displayed in the connectivity area:

If necessary, you can also select the accessory type in the audio settings:

- *Settings*
- *Device* ›*Audio* ›*Accessory type* › *USB*
- *Ok*

After selecting the accessory type, you must specify the jack accessory:

- *Jack accessory*
  - *Headset*
  - *Handsfree*
  - *Loudspeaker*
- Ok.

8.9 Install a Bluetooth® device (pairing)

You can use Bluetooth® devices such as handsets or headsets with your phone.

To use your Bluetooth® device, it must be paired to the set. To manage the pairing, the Bluetooth® device must be in detectable mode. Refer to your Bluetooth® device documentation to find out how to activate detectable mode.

- *Settings*
- *Device* › *Bluetooth®*
- *Add*
- *Scan*
  ›› The set scans for available Bluetooth® devices.
- Select the Bluetooth® device to be paired.
- *Add*.
- Enter the device PIN code.
- *Ok*
  ›› Bluetooth® device connected.

The specific icon is displayed in the connectivity area .
After pairing the Bluetooth® accessory, you must define the accessory type.

- *Settings*
- *Device* › *Audio* › *Accessory type* › *BT*
- *Ok*

Select the type of accessory that you have just added:

- *Bluetooth® accessory*
  - *Headset*
  - *Handsfree*
  - *Loudspeaker*
- *Ok*

If you have selected headset as the accessory type, the headset icon is displayed in the connectivity area: . All devices other than the ALE International Bluetooth® Wireless Handset will be treated as a headset device.

8.10 Install the ALE International Bluetooth® Wireless handset

- *Settings*
- *Device* › *Bluetooth®*
- *Add*
- *Scan*
  ›› The set scans for available Bluetooth® devices.
- Your Bluetooth® device needs to be prepared for pairing. Take the handset off the hook and switch it off, then press and hold both handset buttons at the same time. You will hear a 3-note tone and the LED will flash green and orange.
- ›› Searching for Bluetooth® equipment. Wait for the detected equipment type and address to be displayed.
- Select the relevant equipment.
- *Add*
- Enter the device PIN code (The default PIN code is 0000).
- *Ok*
  ›› The 3-note tone indicates that the handset has been installed correctly (the LED flashes green or orange depending on the battery charge level).

After pairing the Bluetooth® accessory, you must define the accessory type in the audio settings.

- *Settings*
- *Device* › *Audio* › *Accessory type* › *BT* › *Ok*
- *Bluetooth® accessory* › *Headset* › *Ok*

Error messages

- The handset displays an error message indicating that the pairing is unsuccessful ›› Check the status of your Bluetooth® handset or the PIN code.

8.11 Uninstall a Bluetooth® device (unpairing)

- *Settings*
- *Device* › *Bluetooth®*
- Select the Bluetooth® device to unpair.
- Delete
  ›› The Bluetooth® device is uninstalled (unpaired).

8.12 Hearing aid kit

If you are using your phone with a hearing device, you must install and activate the hearing aid device (HAC) to avoid hearing discomfort.

- *Settings*
- *Device* › *Audio* › *Hearing aid*
- Enable the feature: *YES*
  » The hearing aid kit is activated.

8.13 Phone wallpaper

You can change the wallpaper on your phone. The image must be stored in the set or on a USB storage device.
If the image is on the USB storage device, you must connect it to the phone:

- Insert your USB device at the back of the phone.
- The icon is displayed (connectivity information zone).

Change the wallpaper:

- *My files*
- *Picture*
  » The list of images on the USB device is also displayed.
- *Filters*
  » Display the files for the selected storage device.
- Select the image.
- *Wallpaper*
  » The selected image is set as wallpaper.

Supported image formats are: bmp, jpeg, png.
For optimal display, the image dimensions must be 800 x 480.

8.14 Phone screensaver

You can change your phone screensaver to a default or a personal screensaver. The default screensaver uses predefined images. The personal screensaver uses images you have stored in your phone memory and set up in a screensaver pool.

- *Settings*
- *Application* › *Screensaver*
- *Screensaver: Yes* / *No*
  Enable or disable the feature.
- *Screensaver type*
  Select the screensaver type:
  - Default screensaver.
  - Personal screensaver.

You can set the screensaver timeout, the backlight timeout, the brightness when the backlight is on or off and the refresh images interval.

Add an image for your personal screensaver

The images have to be stored in the phone memory.
Supported image formats are: bmp, jpeg, png.
For optimal display, the image dimensions must be 800 x 480.

- *My files*
- *Picture*
- Select the image.
- *Screensaver*
  » The image is added to your personal screensaver pool.

Remove an image from your personal screensaver pool

- *My files*
- *Picture*
- Select the image.
- *Remove from SsPool*
  The image is removed from your personal screensaver pool.

8.15 Customize the user picture

You can change the picture displayed in your personal information area in the top left corner of the screen. The image must be stored in the set or on a USB storage device.

If the image is on the USB storage device, you must connect it to the phone:

- Insert your USB device at the back of the phone.
- The icon is displayed (connectivity information zone).

Change the avatar:

- *My files*
- *Picture*
  » The list of available pictures is displayed.
- *Filters*
  » Display the files for the selected storage device.
- Select the image.
- *My picture*
  » The picture is updated.

Supported image formats are: bmp, jpeg, png.
The recommended size for the avatar is 100x100 pixels.

8.16 Change the theme (skin) of your phone

- *Settings*
- *Device* › *Phone configuration*
- Select the current theme in the configuration page.
  » The available theme list is displayed on the screen.
- Select the desired new theme from the list.
- *Ok*
  Confirm the selection.

Changing the theme may take a few seconds.

8.17 Broadcast the entire display of the phone

To broadcast the entire display of the phone or stop the broadcast, you have to activate or deactivate this feature:

- *Settings*
- *Device* › *Display* › *Clone display to HDMI*
- Activate or deactivate the HDMI output
- Back to homepage.

8.18 Media switch via QR code

If your OpenTouch Conversation client for mobile offers the media switch feature, you can modify your current call routing profile with any internal deskphone which is prepared with QR code. You are able to take control of the deskphone in order to take benefit of the communication conveniences provided by this phone.

Your phone can generate its own QR code to be scanned with a compatible OpenTouch Client.

- Use one of the following:
  - Select the feature .
  - Press your information area in the top left corner of the screen.
- *User Information*
- *QR Code*
  The QR code is displayed on the screen. Touch the screen outside the QR Code to close it.
- Back to homepage.

If the phone is in a meeting room for example, you can use the QR code preview to display permanently the QR Code of the phone in the homepage, in business mode. Like this, the QR code is easy to use.

To display the QR code in the homepage:

- *Settings* › *Application* › *Homepage*
- *QR Code preview* › if enabled, the QR code of the phone is displayed in the homepage in business mode.
- Back to homepage.

8.19 Reset user data

Using the reset feature will erase:

- The audio files or photos that you have stored on your phone,
- your programmable keys,
- your contacts,
- your communications log,
- your programmed alarms,
- your own settings (made via the 'Application' or the 'Device' menus),
- the user's customization (user's or background picture, screensaver, melody, skin),
- your installed web applications.

Before starting the reset procedure make sure this action is needed as most of your data and phone customizations will be erased.

- *Settings*
- *Device* › *Reset*
- Enable the feature: *YES*
- Enter the password.

  The reset starts as soon as you have entered the password.

9 ContactSync

9.1 Introduction

This application is for synchronizing your address book between your phone and the Outlook application. It supports synchronization of the Outlook data placed locally, for example in a local Outlook archive file. The default maximum number of contacts you can synchronize between your phone and your PC is 500. However, your administrator can increase this to up to 1,000. Please ask your administrator for the maximum number of contacts.

Once you have run the initial synchronization, if you delete a contact from the phone contacts list, the contact will be deleted from Outlook during the next synchronization (and vice versa). You are advised to create an Outlook subfolder dedicated to your phone contacts and to work from this folder. This will help protect your general Outlook contacts on your PC.

9.2 Prerequisites

The supported operating systems are:

- Microsoft Windows 7 SP1 (32 bits and 64 bits).
- Microsoft Windows 8 (32 bits and 64 bits).
- By default, the password is your OpenTouch password.

The Outlook supported versions are:

Microsoft Outlook 2003, Microsoft Outlook 2007, Microsoft Outlook 2010, Microsoft Outlook 2013 (32 bits and 64 bits).

The minimal system requirements are:

- Processor: P4 Class or higher.
- RAM memory: at least 256 Mo.
- Minimum available disk space: 100 Mo.
- Screen: 800x600 True Color.
- Network card is required.

9.3 Installing the application on your PC

The application comes as an executable installation file (.exe).

1. Run the application executable file.
2. Select the language: this defines the installation and the application language.

3. Read and agree the license Agreement.

4. Select the application destination folder on your PC (make sure you have the necessary administration rights to install the application in the selected folder).

5. Follow the installation steps.

9.4 Uninstalling the application

There are two different ways for uninstalling the application:

- Uninstall the application via the Windows settings.
- Run the installation executable file and select the 'Remove' option.

9.5 Repairing the application

If the application becomes corrupted, you can repair it.

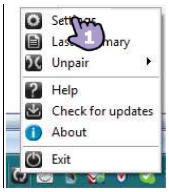
1. Run the application installation executable file.
2. Select the 'Repair' option.
3. Follow information displayed on the screen.

9.6 Configuration

Configuring the application on the PC.

The application is ready to work but it is recommended to check the application default configuration.

1. Open the application configuration: in the task bar of your PC, select the 'Settings' menu of the synchronization menu.



2. You can define:

	The profile and the Outlook folder to use for synchronizing contacts. The default profile and Outlook folder will be used for synchronizing unless you specify a folder and profile. You can change the profile and folder used. You can define a profile for synchronizing the contacts. You are advised to create an Outlook subfolder dedicated to your phone contacts and to work from this folder. This will help protect your general Outlook contacts on your PC.
	The conflict policy (determines how the application should behave when different changes have been made on the phone and the PC) The most recent modification replaces the oldest, In some circumstances, if you are synchronizing with a profile connected to an Exchange server you may face a situation when a conflict is resolved incorrectly with the 'last modified' Ý policy. Make sure that any profile modifications made have been submitted to the Exchange server before synchronizing The phone data always replace the ones on the PC, The PC data always replace the ones on the Phone, The modified data on the phone are copied on the PC and modified data on the PC are copied on the phone (the data are duplicated), No synchronisation is done.
	The silent sync: you can choose to display or not the synchronization progress bar and the synchronization summary.

	The port used by PC for synchronization: if default port cannot be used on the PC you can change it. If you modify the port used by the application, you have to do the same modification on the phone side. Secured connection: while communicating between Contact-Sync and the device, both unsecured HTTP or secured HTTPS protocols can be used. If you checked the 'Use secured connection' checkbox, HTTPS protocol is enabled. However, to manage this checkbox you should make sure the same secured protocol is set up in the device. Please contact your system administrator to find out which protocol is used in your device.
	URL for downloading the application updates.
	Startup: if enabled, the application will be run when Windows starts

Besides Settings item, there are a few item that allow you to display the last synchronization summary, to create or delete a pairing between your phone and your PC, to open the application online help, to display information on the application version or to exit the application.

Configuring the phone

- *Settings*
- *Application* › *Synchronization*
- *PC address*
  Enter the IP address or the complete network name on which the synchronization application is installed.
- *PC port*
  This data defines the port used on the PC for synchronization. The port must be the same as the one filled in the PC application.
- *Warning when exceed*
  Choose if you wish to be informed when a maximum number of items for synchronization is reached (the default setting is 500 items but this may have been changed by the administrator - ask your administrator for the maximum number of contacts).
  If you see this warning during synchronization you may lose some of your items because they have not been synchronized.
- *Sync. button*
  Choose to display the synchronization button in the applications bar of your My IC Phone.
- Back to homepage.

If you try to start the synchronization before configuring it, you will access the Synchronization settings.

9.7 Synchronize your phone and your PC

Before starting synchronization please make sure both the phone and PC software are properly configured.

Start synchronization

- Use one of the following:
  - *Synchronization* (If enabled in the synchronization settings)
  - *Settings* › *Application* › *Synchronization*
- *Synchronization: Start*

If not deactivated in the application configuration (Silent Sync) you can see the synchronization summary on the screen.

During the synchronization, you can at anytime:
See synchronization progress,
Display details of synchronized items,
Cancel the synchronisation.

The synchronization summary lists all the synchronized items.
From the application menu on the PC (Task bar), you can see at anytime the summary from the last synchronization.

Pairing your phone and your PC

When you run the synchronization for the first time, you must pair your phone and your PC.

1. Accept the certificate required by the phone (ensure that the certificate comes from the target PC),.
2. A pairing PIN code (PIN) is displayed on the phone screen.
3. The phone is detected by the PC and you are prompted to enter this PIN code and a name for the pairing. You have 30 seconds to enter the PIN code. If you don't do so you will have to start the procedure again.
4. The synchronization is automatically started when the pairing is established.

This pairing has to be done only for the first synchronization.
From the PC application menu, you can delete this pairing.

Synchronization

During the synchronization, you can monitor progress and view the summary once the process is completed. Make sure this option ('Silent Sync') is configured correctly in the Synchronization settings on the PC side. You can also see which items are modified and where by clicking on the detailed view button.

Synchronization takes about 15 seconds for 500 contacts. You can receive and make calls during synchronization but this can make the synchronization process longer.
The synchronization function is most commonly used to synchronize your PC Outlook contacts with your phone contacts list.

Once you have run the initial synchronization, if you delete a contact from the phone contacts list, the contact will be deleted from Outlook during the next synchronization (and vice versa). You are advised to create an Outlook subfolder dedicated to your phone contacts and to work from this folder. This will help protect your general Outlook contacts on your PC.

9.8 Troubleshooting

Below is a troubleshooting guide that can help you resolve any problems that might occur.

Installation says you do not have write permissions in this folder	You are probably not permitted to change the folder in which you are trying to install PC Sync. Try installing it in another location.
Phone displays 'HTTP error, HTTP request failed'	Please make sure PC Sync is started in the PC. Please check if the same port is set on the phone and on the PC Please check you correctly entered PC address. Please check your firewall settings. The port may be closed by the firewall. Try to change the port.
PC Sync displays 'Unable to listen to the port'	Please make sure no other applications are using this port. Please make sure the firewall allows listening to this port. Try to change the port.
PC Sync displays 'Selected folder has been deleted' or 'Cannot open Outlook profile'	The profile or the folder that Contact-Sync is configured to synchronize with has been deleted. Select another profile or folder in settings.
PC Sync displays 'Outlook is not installed'	Contact-Sync could not find a supported version of Outlook on the PC. Install Outlook.
PC Sync displays 'Error communicating with Outlook'	Contact-Sync could not communicate with Outlook. This might be because Outlook has been installed but not yet set up properly or is malfunctioning. Starting Outlook itself may provide information on what is wrong.
Contact-Sync displays 'Synchronization has failed. An error during data exchange with computer has occured'	Please make sure PC Sync is started in the PC. Please restart Contact-Sync. Please check if Contact-Sync has run when Windows has started (enable the startup option in configuration of the application).
Nothing happens when I press the Synchronization button on the phone (no Synchronization dialog appears in Contact-Sync). An error message appears stating 'Synchronization has failed'.	Most likely there is a mismatch in protocols: the phone uses HTTPS and Contact-Sync uses HTTP or vice versa. Try to check or uncheck the 'Use secured connection' Ý checkbox and restart synchronization. Ask your system administrator which protocol your phone uses.

10 Guarantee and clauses

Safety Instructions

- Changes or modifications to the equipment not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
- Magnets could affect the functioning of pacemakers and implanted heart defibrillators. Keep a safe distance between your pacemaker or implant defibrillator and the handset which includes magnetic elements: 4 centimeters (1,6 inches) at least.
- To limit the risk of interference, people with pacemakers must keep the wireless telephone away from their equipment (minimum distance of 15 cm/6 inches).
- It is recommended to follow the standard acceptance procedures before using this equipment in human safety critical areas (hospitals…).
- The handset includes magnetic elements that may attract sharp metallic objects. To prevent injury, before each use ensure sharp metallic objects are not stuck to the earpiece and microphone.
- There is a danger of explosion if the battery is replaced incorrectly - use only the battery with the reference 3GV28041AB (1.2V 1500 mAh) (Bluetooth® Handset only).
- Battery charge (Bluetooth® Handset only): Charge the battery for about 6 hours before initial use.
- Avoid using phones (other than cordless type) during an electrical storm. There may be a remote risk of electric shock from lightning.
- Do not use the device in environments where there is a danger of explosion.
- Do not plug this phone into an Integrated Services Digital Network (ISDN) connection or into a regular Public Switched Telephone Network (PSTN) connection. This can result in severe damage to the phone.
- Never allow your telephone to come into contact with water.
- To clean your telephone, use a soft damp cloth. Never use solvents (trichlorethylene, acetone, etc.) which may damage the plastic parts of your telephone. Do not use aerosol cleaners.
- This product is intended to be supplied, either via the Ethernet (LAN) port (Minimum Class 3 according to IEEE802.3af), or via the DC-in by a Certified Direct Plug-In Power Unit approved as 'LPS' (Limited Power Source) against CSA/UL/IEC 60950-1 and rated 48V dc, minimum 0.27A. Allowed power supplies: WA-13B48R – Asian Power Devices Inc. ref: 1AF18540AAAA.
- This product also offers a Bluetooth® Radio Interface for the Bluetooth® handset or other Bluetooth® devices, frequency range 2402-2480 MHz, Radiated Power 1mW.
- If you are connected to a POE connection do not use an external Power Supply.
- The cover of the phone screen is made of glass. This glass could break if the phone is dropped or it receives a significant blow. If the glass chips or cracks, stop using the phone and do not touch the broken glass as this could cause injury to you. Glass cracked due to misuse or abuse is not covered under the warranty.

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Regulatory Statements

EUROPE
This equipment is in compliance with the essential requirements of Radio Equipment Directive (RED) 2014/53/EU and with Directive 2011/65/UE (ROHS).
The Declaration of Conformity may be obtained from:

ALE International 32 avenue Kléber – 92700 Colombes, France
ebg_global_supportcenter@al-enterprise.com

USA and Canada
This device complies with Part 15 of the FCC Rules and with RSS210 of Industry Canada. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to Part 15 of the FCC Rules and ICES003 of Canada. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try correcting the interference by consulting the dealer.

Exposure to Radio Frequency Signals.
This device has been designed and manufactured not to exceed the SAR (Specific Absorption Rate) radio frequency power transmission limits established by the different countries concerned. The SAR value for the Bluetooth® handset is 0.09 W/kg (the globally accepted maximum limit being 1.6 W/kg).

User Instructions
Only use the handset in temperatures between 5°C to +45°C (23°F to 113°F).
This apparatus is Hearing Aid Compatible (HAC).

Acoustic shock protection
The acoustic level of the signal generated by the handset earpiece is less than 130 dBspl for a transient signal (123 dBspl for Australia) and less than 118 dBspl (rms) for a continuous signal (120 dBA for Australia).

Directive 2003/10/EC specifying the risks inherent in noise at work
The ring contributes towards overall daily noise.
This device can be used for indoor operation in all the countries.

Privacy
Privacy of communications may not be ensured when using the Bluetooth® handset or any additionnal Bluetooth® device.

Disposal
The equipment must be returned to a collection point for electronic equipment waste disposal. Defective batteries must be returned to a collection point for chemical waste disposal.

Related Documentation
Other languages for these Safety and Regulatory Instructions and User Documentation are available at the following Web site http://enterprise.alcatel-lucent.com?product=All&page=Directory.

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Quick guide

8088 Smart DeskPhone for huddle room

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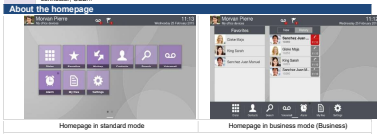
Phone description

1	Sensitive LCD wide screen with ambient light sensor.
2	Embedded HD Video camera with shutter. Swipe the shutter right or left to use or hide the camera.
3	Permanent feature keys: quick access to the phone's main features.
	Mute key.
	Turn down the volume.
	Turn up the volume.
	Answer an incoming call or make a call (keypad) in hands free mode (the key is blue). During a conversation, the first press opens the audio taster. The next press switches between handsfree, handset and audio accessories mode.
	Ignore incoming call. Hang up the ongoing call.
	Show or hide the keypad. During conversation use the keypad to send DTMF signals.
	Use this key to consult the call log. This key is lit when you have received a new voicemail or a missed call. During conversation, press this key to take you back to the call screen. Open user settings and information (logs of telephony services, routing management, video self-view). This key is lit when your device is not routed.
	Return to the homepage at any time.
4	Bluetooth® handset for optimized communication. A wired handset is also available and can replace the Bluetooth® handset. Off-hook/On-hook. Volume/Mute: • Short successive presses to change the handset volume level (3 levels). • Long press to ensure your caller no longer hears you.
5	Wideband loudspeaker for optimized sound.
6	LED Arrival of a new call (Flashing).
7	An adjustable and stable foot.
8	3.5 mm and 4 pin stereo headset jack.
9	Microphone.
	Various connections to extend phone capability: HDMI connector for better video experience, wired handset connector, USB...

About the homepage



Homepage in standard mode | Homepage in business mode (Business)

The phone set homepage can be viewed in standard or business mode. Scroll through the application area pages (standard mode) or the application bar (business mode) to find the application you want. The standard mode displays applications and programmable keys. The business mode displays application previews. An application preview allows you to view this application information and easily access it. Applications that can be previewed are: History. Favorites. Dial-pad. Use the application settings to select the homepage type: Application -> Homepage.

Personal area
This area displays information about the user's phone and configuration, including last name, first name, avatar, and routing.

Notifications area
In idle state: This area displays information on the latest phone events, such as missed calls and voice messages.
During a call: Call status (ongoing, on hold, incoming call) is shown in this area.
Pressing this area during a call takes you back to the call screen.

Date, time and connectivity area
This area displays time, date, connectivity and customization information (wake-up on, intercom mode on).

Applications bar (Homepage in business mode)
This area allows access to all applications and to different features of the running application.

Quick guide

8088 Smart DeskPhone for huddle room

Homepage

Make your selection by pressing the right icon on the sensitive screen.	
In standard mode, personalize the homepage by pressing and holding.	
Scroll through the application area pages (advanced mode) or the application bar (business mode). In standard mode only, you can have up to 2 pages.	
First press: back to the previous homepage page. Second press: back to the first homepage page.	

Status icons

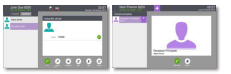
Incoming call.		Ongoing video call.	
Ongoing call.		Call on hold.	

Connectivity icons

External camera plugged in.		Headset plugged in.	
Video running.		Bluetooth enabled.	
Alarm programmed.		Silent ring activated	
Identity secrecy activated.		Silent ring activated	

Function icons

Make a call.	
Open the dial keypad to make a conversation.	
Search for a contact.	
Access the settings menu.	
This application allows you to manage audio files and images.	
The history application shows two tabs, listing new phone events such as missed calls, and older phone events.	
To access voice mail functions.	
This application contains favorite contacts that you have selected from your list of contacts. Call a contact from the favorites application.	
Make a call using your list of contacts.	
This application is for synchronizing your address book and agenda between your phone and your PC Microsoft® Outlook application.	
Set an alarm.	
Apply.	
Cancel.	



Receiving a conversation

Actions available during a conversation depend on the type of conversation.

	Answer the call.
	Ignore call. Your phone no longer rings but your caller still hears the ringing tone.

During conversation

	Start a video call. Press anywhere on the main video screen to display the video in fullscreen mode. You can choose to hide or show the 'picture in picture'.
	End the active call.
	Access the DTMF feature and activate DTMF signals. You might need to send DTMF signals when you are in communication with a call server for example.
	Transfer the call to another contact.
	Put a caller on hold.
	Retrieve the caller on hold.
	Make a second call.
	Transfer call to your contact on hold.
	To access more options.

Keys dedicated to specific features

Some keys appear only when certain features are accessed.

	Call back the selected caller in the call log.
	Create a new contact.
	Delete the selected item of the call log.
	Delete the complete call log.

	Call a selected contact.
	Search for a contact in the Company's directory.
	Add or remove the selected contact to your list of Favorites.
	Add a contact to your list of contacts.
	Edit the details of a contact.
	Delete a contact from your list of contacts.

The visual voicemail application shows two tabs which allow you to list new voice messages and to consult messages (old and new).

	Listen to message.
	Pause while listening to message.
	Stop listening.
	Delete voicemail/Delete all voicemails.
	Consulting your voice mailbox.
	Identity secrecy activated.
	Media switch via QR code.

TROUBLESHOOTING GUIDE	No. TG0065	Ed. 02
	Nb of pages: 47	Date: 21 July 2015
SUBJECT: 8082 My IC Phone and 8088 Smart DeskPhone Troubleshooting Guide		

CONTENTS

1. INTRODUCTION

The aim of this document is to help trouble shoot issue involving a My IC Phone in an OXE Hotel, OmniPCX Entreprise or Open Touch environnement.

2. HISTORY

Edition 02	21 July 2015	Some minor modifications (sections 3.3.4 and 3.3.7.6) This TG also applies to the 8088 Smart DeskPhone.
Edition 01	2 August 2011	This edition contains the available embedded commands and logs within the My IC Phone

3. EMBEDDED COMMANDS AND LOGS

3.1 SSH Command Line Interface connection

It is possible to access to embedded commands using a SSH client (like putty for example).
The login is **admin** and the password is the one defined in the phone configuration file **config.00809fa0076a.xml** (where 00809fa0076a is the phone MAC address). This parameter is set through the 8770 and the config.00809fa0076a.xml file is sent by the 8770.
For example: <setting id="DmAdminPasswd" value="0000" override="true"/>

Once logged in, the phone prompt is displayed and embedded commands can be used:

```
login as: admin
admin@172.25.34.7's password:
Last login: Thu Dec 16 14:35:19 2010 from 155.132.130.216


BusyBox v1.11.1 (2010-11-09 17:45:26 CET) built-in shell (ash)
Enter 'help' for a list of built-in commands.

$
```

For a phone "out of the box" which has never received a configuration file with a new password, the default password is ***tx8000#**

3.2 File transfer SFTP connection

It is possible to transfer files from and to the phones using a SFTP client (like FileZilla for example).
This is usefull to download from the phone traces and logs.
The login and password are the same as for the SSH Command Line Interface connection.

3.3 Embedded commands

3.3.1 Phone internal configuration files

The phone internal configuration files can be read in the /config/ folder:

```
$ cd /config
$ ls -l
drwxrwxrwx    2 root     root           232 Sep 16 12:00 bt
lrwxrwxrwx    1 root     root            16 Sep 16 11:58 current ->
/var/run/current
drwxr-xr-x    2 root     root           232 Sep 24 10:15 dhcp
drwxr-xr-x    2 root     root           880 Dec 17 14:07 dm
drwxr-xr-x    2 root     root           232 Sep 16 20:19 etc
lrwxrwxrwx    1 root     root            21 Sep 16 11:58 fab -> /config-
fab/fabconfig
lrwxrwxrwx    1 root     root            13 Sep 16 20:19 lldp ->
/var/run/lldp
drwxr-xr-x    2 root     root           440 Dec 17 14:09 local
drwxrwxr-x    3 applicat 501            224 Sep 16 15:31 restore
drwxrwxr-x    2 applicat 501            232 Nov 22 14:44 u-boot
drwxr-xr-x    2 applicat 501            520 Dec 16 17:05 upgrade
drwxr-xr-x    2 root     root           160 Sep 16 20:19 voip
```

There are several folders. Several configuration files are located in each of them.
Warning: these files have not to be modified. They are generated automatically (from DHCP server information, local configuration application, device manager, ...).
All these information are gathered and the global phone configuration is generated.

3.3.1.1 Bluetooth (/config/bt)

This folder contains the Bluetooth configuration:

- ictbtmgr.conf: phone bluetooth and bluetooth handset configuration

3.3.1.2 Current used configuration (/config/current)

This folder contains the currently used configuration:

- admin.cfg: some global configuration parameters
- enet.cfg: various network parameters
- ethlink.cfg: ethernet interfaces (LAN and PC port) configurations
- lldp.cfg: LLDP configuration and information
- security.cfg: certificate, deny of service and ARP attacks protections configurations
- wpa8021x.cfg: 802.1x configuration

3.3.1.3 DHCP (/config/dhcp)

This folder contains the information received from the DHCP server:

- enetbackup.cfg: IP parameters and DM server information received from the DHCP server

3.3.1.4 Device Manager configuration files (/config/dm)

This folder contains the configuration files received from the device manager and the generated phone configuration:

- config.00809fa0076a.xml: configuration file received from the device manager (8770)
- <number>@<node>: SIP configuration file received from the device manager (8770)
- mycusto.xml: configuration file (hotel customization) received from the device manager (8770)
- admin.cfg: administration configuration generated from the received configuration files
- enet.cfg: network configuration generated from the received configuration files
- security.cfg: security configuration generated from the received configuration files
- wpa8021x.cfg: 802.1x configuration generated from the received configuration file

3.3.1.5 Manufacturing information (/config/fab)
3.3.1.6 lldp information (/config/lldp)
3.3.1.7 Local configuration (/config/local)

This folder contains the configuration entered by the administrator with the phone local settings application (**settings** key press during phone initialization):

- admin.cfg: some global configurtion (timezone for example)
- enet.cfg: network configuration
- secdat
- wpa8021x.cfg: 802.1x configuration

3.3.1.8 Binary upgrade information (/config/upgrade)

This folder contains various information about the phone binary updates:

- profile.xml: latest downloaded profile.xml file (containing the index.xml file listing the rpm to use)
- profile.xml.sum: md5 checksum of the latest downloaded profile.xml file
- status: download current status
- upgrade_report: latest upgrade report
- upgrade_report.1: next to last upgrade report

3.3.2 Remaining disk space

This is usefull when logging with high debug levels and making network captures to check how much logs can be taken.
Following Linux command can be used to check remaining space:

```
$ df -h
Filesystem                Size      Used Available Use% Mounted on
rootfs                  273.5M    157.1M    116.4M  57% /
ubi0:SYSTEM             273.5M    157.1M    116.4M  57% /
tmpfs                   113.0M    952.0k    112.0M   1% /var/tmp
none                    113.0M     28.0k    112.9M   0% /dev
none                    113.0M         0    113.0M   0% /dev/shm
```



```
tmpfs                    10.0M    192.0k      9.8M   2% /var/log
tmpfs                   113.0M    952.0k    112.0M   1% /var/tmp
tmpfs                   113.0M     68.0k    112.9M   0% /var/run
ubi0:CONFIG              14.0M     10.1M      3.9M  72% /config
ubi0:FAB-DATA           688.0k     64.0k    624.0k   9% /config-fab
ubi0:DATA               116.6M    456.0k    116.1M   0% /data
```

For information, the following table shows where usually used folders point to:

```
lrwxrwxrwx    1 root     root             9 Sep 16 11:58 log -> /data/log
lrwxrwxrwx    1 root     root             8 Sep 22 14:05 tmp -> /var/tmp
```

Note: use **ls -l** to see this kind of information.

See also how to delete the phone log files.

3.3.3 Network trace (tcpdump)

Since the phone runs on a linux plateform, tcpdump tool is available to record the network traffic.
A lot of native tcpdump options can be used. See online help for more information.
Type **tcpdump --help** for the inline help:

```
$ tcpdump --help
tcpdump version 3.9.5
libpcap version 0.9.8
Usage: tcpdump [-aAdDeflLnNOpqRStuUvxX] [-c count] [ -C file_size ]
                [ -E algo:secret ] [ -F file ] [ -i interface ] [ -M
secret ]
                [ -r file ] [ -s snaplen ] [ -T type ] [ -w file ]
                [ -W filecount ] [ -y datalinktype ] [ -Z user ]
                [ expression ]
```

3.3.3.1 Examples

3.3.3.1.1 Record all the trafic to a file

```
$ tcpdump -s 0 -w /tmp/trace.pcap
```

- This is usefull when the amount of data to record is quite small (for example a call setup and communication of a few seconds).
- Use **<Ctrl><C>** to stop the trace.
- The file (/tmp/trace.pcap) can then be dowloaded from the phone using the File transfer SFTP connection.
- **Warning**: take care to not saturate the phone with a too big file (see how to check the remaining disk space).

3.3.3.1.2 Record all the trafic to several files

```
$ tcpdump -s 0 -C 3 -W 1 -w /tmp/trace.pcap
```

- This is usefull to record trafic when trying to catch a random issue. In order not to saturate the phone, several recording files will be used. The file size is fixed and their number is limited. Once all the files are created, the oldest one is overwritten.
- Use **<Ctrl><C>** to stop the trace.
- The files (/tmp/trace.pcapX) can then be dowloaded from the phone using the File transfer SFTP connection.
- **Warning**: take care to not saturate the phone with too big files (see how to check the remaining disk space).

3.3.3.1.3 Record all the trafic to a file in background

```
$ tcpdump -s 0 -C 3 -W 1 -w /tmp/trace.pcap &
```

- This is usefull to record trafic and meanwhile do other debug operation in the phone. The trace is recorded in background.
- After having enter the above command, use **<RETURN>** to be able to do the other operations.
- Use **killall tcpdump** to stop the trace.
- The file (/tmp/trace.pcap) can then be dowloaded from the phone using the File transfer SFTP connection.
- **Warning**: take care to not saturate the phone with a too big file (see Remaining disk space).

3.3.4 Initialization logs

The logs of the last phone initialization are saved in **/log/log.rcS**
cat /log/log.rcS allows to watch them inline.
The file can also be retrieved using the SFTP connection (see File transfer SFTP connection)
Previous initialization is saved in /log/log.rcS.1

3.3.5 Internal logs

Internal logs can be activated for several phone application and functions.
The logs can be stored on the phone itself (in a file) or sent to a syslog server.
Log levels can be configured.

3.3.5.1 Default configuration

By default, all the logs level are set to error (minimal level) and stored in the phone (in files):

```
$ level

   ACTIVITE                    LEVEL     SUPPORT          DESTINATION
IctProgrammableKeys            err        file
/var/log/IctProgrammableKeys.log
```



```
Comlog                         err        file
/var/log/Comlog.log
IctWebClient                   err        file
/var/log/IctWebClient.log
IctFileManager                 err        file
/var/log/IctFileManager.log
ICTSaveRestore                 err        file
/var/log/ICTSaveRestore.log
IctDirectory                   err        file
/var/log/IctDirectory.log
LoggerModule                   err        file
/var/log/LoggerModule.log
Telephony                      err        file
/var/log/Telephony.log
IctMail                        err        file
/var/log/IctMail.log
IctUser                        err        file
/var/log/IctUser.log
IctIM                          err        file
/var/log/IctIM.log
MediaPlayer                    err        file
/var/log/MediaPlayer.log
WSManager                      err        file
/var/log/WSManager.log
ICTGate                        err        file
/var/log/ICTGate.log
Monitoring                     err        file
/var/log/Monitoring.log
ictaudio                       err        file
/var/log/ictaudio.log
ictbtmgr                       err        file
/var/log/ictbtmgr.log
ictsipua                       err        file
/var/log/ictsipua.log
GreenManager                   err        file
/var/log/GreenManager.log
Platform                       err        file
/var/log/Platform.log
IctAudioMediator               err        file
/var/log/IctAudioMediator.log
IctMPInterface                 err        file
/var/log/IctMPInterface.log
Scheduler                      err        file
/var/log/Scheduler.log
SettingsManager                err        file
/var/log/SettingsManager.log
ictfwupmgr                     err        file
/var/log/ictfwupmgr.log
Agenda                         err        file
/var/log/Agenda.log
ICTCliGateLite                 err        file
/var/log/ICTCliGateLite.log
ApplicationManager             err        file
/var/log/ApplicationManager.log
```

```
ictgate_module_crash.jpg        err        file
/var/log/ictgate_module_crash.jpg.log
ictwebclient_module_crash.jpg   err        file
/var/log/ictwebclient_module_crash.jpg.log
WebApp                          err        file
/var/log/WebApp.log
no_facility                     err        file
/var/log/no_facility.log
```

3.3.5.2 Send one stream to the ssh client

```
$ level ictsipua debug
$ redirect ictsipua usertty admin
```

- This is usefull to see **"live"** one debug stream.
- In this example, the SIP logs are set to debug level and redirected to the current console (ssh since we are connected through ssh)

3.3.5.3 Store one stream to a file

```
$ level ictsipua debug
$ redirect ictsipua file /var/log/ictsipua.log
```

- This is usefull to record one debug stream in a file and retrieve this file for offline analysis.
- In this example, the SIP logs are set to debug level and redirected to the /var/log/ictsipua.log file).
- It is adviced to use the default file names and locations (see Default configuration).
- The file (/var/log/ictsipua.log) can then be dowloaded from the phone using the File transfer SFTP connection.
- **Warning**: take care to not saturate the phone with a too big file (see Remaining disk space).

3.3.5.4 Delete the log files stored in the phone

```
$ deletelogs
```

- This is usefull to delete the log files (content of the /var/logs/ folder).

3.3.5.5 Redirect one stream to a syslog server

```
$ level ictsipua debug
$ redirect ictsipua udp 155.132.130.216 514
```

- This is usefull to track random issues. Syslog server is setup and collects and saves the logs for one or several phones. Thus, this configuration can run for several days. For example, Kiwi syslog deamon can be used.
- In this example, the SIP logs are set to debug level and redirected to syslog server hosted on a server with IP address 155.132.130.216. Default syslog UDP port 514 is used.

netlog command can also be used. For example:

```
$ level ictsipua debug
$ netlog ictsipua udp 155.132.130.159 514
```

will redirect the SIP debug messages (with debug level) to 155.132.130.159 IP equipment 514 UDP port.

3.3.5.6 Check current levels and destinations

- For all the activities:

```
$ level
...
```

- For one activity (ictsipua in this example):

```
$ level | grep ictsipua
ictsipua              debug      usertty      admin
```

3.3.5.7 Come back to default configuration (see Default configuration)

- For all the activities:

```
$ level all init
$ redirect all init
```

- For one activity (ictsipua in this example):

```
$ level ictsipua init
$ redirect ictsipua init
```

3.3.5.8 More information

Use following commands to get inline help:

```
$ level --help
$ redirect --help
```

3.3.6 Binary upgrade

3.3.6.1 dwl

```
$ dwl help
Usage: dwl [upgrade <on|off>]
        .. [seturl <force_upgrade_url>]
        .. [check]
        .. [config]
        .. [version]
        .. [help]

Arguments:
```

```
  - upgrade <on|off>: enable/disbale the upgrade process
  - seturl <force_upgrade_url>: force upgrade using this url
  - check: compare insataleld RPMs with the one available on the server
  - config: list all settings used
  - version: display the current tool's version
  - help: display this menu
```

3.3.6.1.1 Check the binary upgrade configuration like polling, file and server IP address

```
$ dwl config
Upgrade settings used:
  upgrade status: on
  upgrade file: /vhe/customfiles/mycusto/profile.xml
  upgrade polling status: true
  upgrade polling timeout: 3600
  main server used: 172.25.35.230
dwl OK
```

3.3.6.1.2 Enable and disable the upgrade

```
$ dwl upgrade on
$ dwl upgrade off
```

3.3.6.1.3 Launch an upgrade (with a specific URL where to download the binary)

```
$ dwl seturl http://172.25.35.230/vhe/customfiles/mycusto/profile.xml
```

3.3.6.1.4 Check the list of RPM available on the server and compare it to the ones embedded in the phone

```
$ dwl check
```

3.3.6.1.5 Upgrade one phone to a specific test binary

This command is usefull to upgrade one phone to a specific test binary (different from the binaries available on the device manager).
The test binary can be located on a laptop embedding an http server.

Example:

```
$ dwl upgrade off
$ dwl seturl
http://myLaptopIpAddress/myTestBinaryFolder/myTestBinaryProxile.xml
```


The phone will now upgrade to the test binary and also disable the upgrade mechanism. So it will not download the binary located on the device manager (official binary) after next reboot.

Warning: do not forget to activate again the upgrade mechanism (**dwl upgrade on**) and reset the phone (**reset**) to switch again to the official binary once the test is finished.

3.3.7 Incidents

3.3.7.1 defence

This command is usefull to check the phone incidents like reset causes.
These messages are stored in log files saved in flash memory (can be accessed even after a phone reset).

```
$ defence --help

_____________________________________________________________________________
______
|
|
|
|  OBJECT : defence command is made to access to the defence flash
|
|           sector in read or delete access mode
|
|
|  ====================================
|
|  |    defence with one parameter      |
|
|  ====================================
|
|
| ==> COMMAND :defence --help
|
|
|
|  Print the help on the terminal
|
|
| ==> COMMAND :defence delete
|
|
|
```

```
|  Delete both defence.* and Defence.* log files in /log flash sector
|
|
| ==> COMMAND :defence size
|
|
|  Return the number of log messages in /log/Defence.log file
|
|
|  ====================================
|
|  |    defence with two parameters     |
|
|  ====================================
|
|
|  COMMAND :defence <number> <access type>
|
|
|  <number>: number of lignes to read or delete from the end of
|
|            the defence log file
|
|  <access type>    :
|
|  - command read   :  print the last <number> lines from the defence log
file  |
|  - command delete : delete the last <number> lines from the defence log
file  |
|
|  Example :
|
|  defence 100 read   -->  print the last 100 lignes from
/log/defence.log file |
|  defence 100 delete --> delete the last 100 lignes from
/log/defence.log file |
|
|
|                  ------------ End of Help ----------------
|
|
|
|_____________________________________________________________________________
_______|
```

3.3.7.2 Number of logged incidents

```
$ defence size
```



```
[DEFENCE] Total messages saved in flash sector:831
```

3.3.7.3 Read the last incidents

This command allows to read the last x incidents.

Example (read last 10 incidents):

```
$ defence 10 read
```

3.3.7.4 Delete the last incidents

This command allows to delete the last x incidents.

Example (delete last 10 incidents):

```
$ defence 10 delete
```

3.3.7.5 Delete all the incidents

This command allows to delete all the logged incidents.

```
$ defence delete
```

3.3.7.6 Log files

The incidents are stored in files which are located in flash memory.
Once current file is full (100kb file size), it the saved and emptied.
There are thre files:

- /log/Defence.log: this is the current log file. A new incident will be stored in this file,
- /log/Defence.log.1.gz: this is the previous log file,
- /log/Defence.log.2.gz : this is the oldest log file.

3.3.7.7 Check the reset causes

The reset causes are logged in the **/log/Reset.log** file. To read them online:

```
$ more /log/Reset.log
```

3.3.8 Reset management

3.3.8.1 Software reset

This command allows to do a software reset with limited network cut time

```
$ reset
```

or

```
$ reset soft
```

3.3.8.2 Hardware reset

This command allows to do a hardware reset. Network cut time is bigger than for the software reset.

```
$ reset hard
```

3.3.8.3 Back to "out of the box" configuration

This command allows to come back to an "out of the box" configuration (as after phone manufacturing).
All the configuration is erased and put back to the default values.
Note that the phone software is not changed (not put back to the manufactured one).

```
$ reset flash
```

3.3.9 Audio management and information

3.3.9.1 Active channels (audio)

3.3.9.1.1 Check active channels

This command is useful to check if there is an ongoing communication.
Phone can manage several audio channels but only one is used at a time (channel 0).

- In above example, no audio channels are active. Phone is in idle state (no ongoing communications):

```
$ audio
#audio#
state idle
no channel active
audio OK
```

- Hereafter, an example when a communication is ongoing:

```
$ audio
#audio#
state active
1 channels active:
channel 0
audio OK
```

1 channel is active (channel 0).

3.3.9.2 Active communication IP parameters (rtp)

3.3.9.2.1 Check all ip parmaters of active communication

This command is useful to check the ongoing communication IP parameters (local and remote IP address and port, encryption).
As written before, the phone can manage several audio communications but only one is used at a time (channel 0)

```
$ rtp 0
#rtp#
state active
direction rxtx
locip 172.25.34.7
locport 6000
remip 172.25.34.69
remport 32002
encryption no
rtp OK
```

In above example, we can see:

- **state active**: a communication is ongoing,
- **direction rxtx**: the communication was setup with bidirectionnal audio,
- **locip 172.25.34.7**: the phone uses 172.25.34.7 as IP addresse for the RTP exchanges,
- **locport 6000**: the phone uses 6000 as UDP port for the RTP exchanges,
- **remip 172.25.34.69**: the remote side IP equipment uses 172.25.34.69 as IP addresse for the RTP exchanges,
- **remport 32002**: the remote side IP equipment uses 32002 as UDP port for the RTP exchanges,
- **encryption no**: there is no encryption for this communication.

3.3.9.2.2 All ip parmaters when there is no active communication

In case there is no ongoing communication, the command returns previous active communication information. Only **state** parameters changes (from **active** to **idle**).

```
$ rtp 0
#rtp#
state idle
direction rxtx
locip 172.25.34.7
locport 6000
remip 172.25.34.69
remport 32002
encryption no
rtp OK
```

3.3.9.2.3 Check specific ip parmaters of active communication

It is possible to check each parameter.
Example (check if there is an ongoing communication):

```
$ rtp 0 state
#rtp#
idle
rtp OK
```

Hereafter, the parameter list: state, direction, locip, locport, remip, remport, encryption.

3.3.9.3 Active communication audio codec (codec)

3.3.9.3.1 Check the audio codec information for active communication

This command is useful to check the ongoing communication audio codec used.
As written before, the phone can manage several audio communications but only one is used at a time (channel 0)

```
$ codec 0
#codec#
compress G711_A64k
vad off
band narrow
framing 20 ms
pktprd 20 ms
codec OK
```

In above example, we can see:

- **compress G711_A64k**: G711 Alaw 64 kbits/s compressor is used,
- **vad off**: voice activity detection is not activated,
- **band narrow**: narrow band audio is used,
- **framing 20 ms**: phone DSP framing is 20ms,
- **pktprd 20 ms**: each RTP packet contains 20ms of audio.

3.3.9.3.2 Audio codec in case there is no active communication

In case there is no ongoing communication, the command returns an error code (**codec KO**) stating there is no audio communication ongoing (**no active stream**):

```
$ codec 0
#codec#
no active stream
codec KO
```

3.3.9.3.3 Check the audio codec specific information for active communication

It is possible to check each parameter.
Example (check the current used compressor):

```
$ codec 0 compress
#codec#
G711_A64k
codec OK
```

Hereafter, the parameter list: compress, vad, band, framing, pktprd.

3.3.9.4 Device states (device)

3.3.9.4.1 Check the handset state (device handset)

This command is useful to check if there is an active communication with the **handset** activated and the used audio level.

```
$ device handset
#device#
direction rxtx
flux 0
level 0 dB
device OK
```

In above example, we can see:

- **direction rxtx**: the communication was setup with bidirectionnal audio,
- **flux 0**: channel 0 is used (as written before, the phone can manage several audio communications but only one is used at a time: channel 0),
- **level 0 dB**: audio level is 0 dB.

In case there is no active communication or communication is with another audio device (handsfree for example), the command returns:

```
$ device handset
#device#
direction off
flux none
level 0 dB
device OK
```

Note that previous communication audio level (**level**) is returned. But **direction off** and **flux none** tell that there is no ongoing communication with the handset.

3.3.9.4.2 Check the handsfree state (device handsfree)

This command is useful to check if there is an active communication with the **handsfree** activated and the used audio level.

```
$ device handsfree
#device#
direction rxtx
flux 0
level -21 dB
device OK
```

In above example, we can see:

- **direction rxtx**: the communication was setup with bidirectionnal audio,
- **flux 0**: channel 0 is used (as written before, the phone can manage several audio communications but only one is used at a time: channel 0),
- **level 0 dB**: audio level is 0 dB.

In case there is no active communication or communication is with another audio device (handset for example), the command returns:

```
$ device handsfree
#device#
direction off
flux none
level -21 dB
device OK
```

Note that previous communication audio level (**level**) is returned. But **direction off** and **flux none** tell that there is no ongoing communication with the handsfree.

3.3.9.4.3 Check the headset state (device headset)

This command is useful to check if there is an active communication with the **headset** activated and the used audio level.

```
$ device headset
#device#
direction rxtx
flux 0
level -8 dB
device OK
```

In above example, we can see:

- **direction rxtx**: the communication was setup with bidirectionnal audio,
- **flux 0**: channel 0 is used (as written before, the phone can manage several audio communications but only one is used at a time: channel 0),
- **level 0 dB**: audio level is 0 dB.

In case there is no active communication or communication is with another audio device (handset for example), the command returns:

```
$ device headset
#device#
direction off
flux none
level -8 dB
device OK
```

Note that previous communication audio level (**level**) is returned. But **direction off** and **flux none** tell that there is no ongoing communication with the headset.

3.3.9.4.4 Check a device specific information (device <device> <parameter>)

It is possible to check each parameter.
Example (check if there is an ongoing communication with the handsfree):

```
$ device handsfree direction
#device#
rxtx
device OK
```

Hereafter, the parameter list: direction, flux, level.

3.3.9.5 Device states (audiocfg)

3.3.9.5.1 Check all the device configurations (audiocfg)

This command is useful to check the different device configurations.

```
$ audiocfg
#audiocfg#
 RJ9 Audio Dev Type  : Handset
Audio Dev Enabled in : Jack
Jack Audio Dev Type  : Headset
 USB Audio Dev Type  : Unknown
  BT Audio Dev Type  : Unknown
audiocfg OK
```

In above example, we can see:

- **RJ9 Audio Dev Type : Handset**: the RJ9 port is configured to plug a handset,
- **Audio Dev Enabled in : Jack**: an accessory can be plugged in the jack port,
- **Jack Audio Dev Type : Headset**: the jack port is configured to plug a headset.
- **USB Audio Dev Type : Unknown**: the USB port is not configured to plug an accessory,
- **BT Audio Dev Type : Unknown**: the Bluetooth module is not configured to pair an accessory.

3.3.9.6 Vocie mode (vociemode)

3.3.9.6.1 Check the current active device (voicemode)

This command is useful to check which is the active audio device.

```
$ voicemode
#voicemode#
Handsfree <Internal>
voicemode OK
```

In above example, we can see that the ongoing communication is with the phone internal in handsfree.

- Several values can be returned:
  Idle when there is no ongoing communication,
  Handset and the associated used port / module (**<RJ9>**, **<BT>**, **<BT via USB>**),
  Headset and the associated used port / module (**<RJ9>**, **<BT>**, **<BT via USB>**),
  Handsfree and the associated used port / module (**<Internal>**, **<Jack>**, **<BT>**, **<BT via USB>**),
  Ring <Internal Loudspeaker> when the phone is ringing,
  internal group-listening is added in case the group listening feature is activated (internal loudspeaker in addition to another device like handset or headset).

3.3.9.6.2 Set the current active device (voicemode set <device>)

This command is useful to change the current active audio device (for example to make a test when the user is not in front of the phone).

```
$ voicemode set handsfree
```

```
#voicemode#
voicemode OK
```

Following paramters can be used:
idle,
handset,
headset,
handsfree,
handsfree internal,
handsfree external (if there is an external handsfree device configured).

3.3.9.7 Loudspeaker information and management (loudspeaker)

3.3.9.7.1 Check loudspeaker state (loudspeaker)

This command is useful to check if the loudspeaker is activated. This command is used only in case of group listening feature is activated.

```
$ loudspeaker
#loudspeaker#
on
loudspeaker OK
```

In above example, loudspeaker is not activated (loudspeaker in addition to another device like handset or headset).

In case loudspeaker is not activated (group listening feature not activated), the command returns:

```
$ loudspeaker
#loudspeaker#
off
loudspeaker OK
```

3.3.9.7.2 Set the loudspeaker state (loudspeaket set <state>)

This command is useful to change the current loudspeaker state (for example to make a test when the user is not in front of the phone). This command is used only in case of group listening feature is activated.

- To activate the loudspeaker (and activate the group listening):

```
$ loudspeaker set on internal
#loudspeaker#
loudspeaker OK
```

- To activate the external (if configured) loudspeaker (and activate the group listening):

```
$ loudspeaker set on external
#loudspeaker#
loudspeaker OK
```

- To deactivate the loudspeaker (and deactivate the group listening):


```
$ loudspeaker set off
#loudspeaker#
loudspeaker OK
```

3.3.9.8 Mute information (mute)

3.3.9.8.1 Check the mute states (mute)

This command is useful to check if the mute is activated.

```
$ mute
#mute#
Mute mode is off
Device mute mode is off
DTMF mute mode is off
Bluetooth mute mode is off
mute OK
```

3.3.9.9 Global rtp configuration (media rtp)

This command is useful to check the global rtp parameters which will be used (codec payload duration, dtmf telephonic events payload type, ...).

```
$ media rtp
#media#
tos=46
RFC2198 enable=0
dtmf telephony event  payload type=97
dtmf redundant header payload type=96
AMR payload type=117
G722 WB BitRate=2
AMR WB BitRate=2
codec=G.711 PCMU
vocoders[0].payload_ms=20
vocoders[0].silence_compression_onoff=0
codec=G.711 PCMA
vocoders[1].payload_ms=20
vocoders[1].silence_compression_onoff=0
codec=G.729 AB
vocoders[2].payload ms=20
vocoders[2].silence_compression_onoff=0
codec=G.722 ADPCM 64k
vocoders[3].payload ms=20
vocoders[3].silence_compression_onoff=0
codec=G.722.2 AMR WB
vocoders[4].payload_ms=20
vocoders[4].silence_compression_onoff=0
media OK
```

3.3.9.10 Global ringing configuration (media ring)

This command is useful to check the global ringing parameters which will be used (level, melody, ...).

```
$ media ring
#media#
internal_ring=18
external_ring=18
appointment_ring=18
special_ring=18
silent_ring=0
beep=0
progressive=0
ring_state=0
ringlock=0
media OK
```

3.3.9.11 Global volume configuration (media vol)

This command is useful to check the global volume parameters which will be used (level).

```
$ media vol
#media#
ring_volume=1
loudspeaker_volume=3
earpiece_volume=2
headset_volume=3
media OK
```

3.3.9.11.1 Change global volume configuration (media vol + and media vol -)

It is also possible to change the volume on the fly using **media vol +** and **media vol -**.

```
$ media vol
#media#
ring_volume=2
loudspeaker_volume=3
earpiece_volume=2
headset_volume=3
media OK
$ media vol -
#media#
status=1
media OK
$ media vol
#media#
ring_volume=1
loudspeaker volume=3
earpiece_volume=2
headset_volume=3
media OK
```


3.3.9.12 Global dtmf configuration (media dtmf)

This command is useful to check the global dtmf parameters which will be used (rfc, gain, duration, ...).

```
$ media dtmf
#media#
sending_mode=rfc2833
sending_gain=-10dB
feedback activity=1
play duration=follow key
media OK
```

3.3.9.13 Global tone configuration (media tone)

This command is useful to check the global tone parameters which will be used (country, ...).

```
$ media tone
#media#
country=UK
direction=egress
use custom tone =false
media OK
```

3.3.9.14 Hearing aid configuration (hearingaid)

This command is useful to check the hearing aid configuration (activation).Once activated, the handset gain and frequency response is adapted.

```
$ hearingaid
#hearingaid#
handset hearing aid filter off
hearingaid OK
```

3.3.9.14.1 Hearing aid activation and deactivation (hearingaid set)

This command is useful to change the hearing aid configuration (activation state).

```
$ hearingaid set on
#hearingaid#
hearingaid OK
$ hearingaid set off
#hearingaid#
hearingaid OK
```

3.3.10 IP configuration

3.3.10.1 Read the IP configuration (ipconfig)

This command allows to check the IP configuration (ip address, subnet mask, router IP address, DHCP mode, vlan number)

```
$ ipconfig
ip 172.25.34.7
mask 255.255.255.0
router 172.25.34.1
mode Static
vlan 134
ipconfig OK
```

3.3.10.2 Change the IP configuration (ipconfig set)

This command allows to chenge the IP configuration (ip address, subnet mask, router IP address, DHCP mode, vlan number)
Reset of the phone is needed to take into account the changes

3.3.10.2.1 Change the IP address (ipconfig set ip)

```
$ ipconfig set ip 172.25.34.123
ipconfig OK
```

3.3.10.2.2 Change the subnet mask (ipconfig set mask)

```
$ ipconfig set mask 255.255.0.0
ipconfig OK
```

3.3.10.2.3 Change the router IP address (ipconfig set router)

```
$ ipconfig set router 172.25.34.254
ipconfig OK
```

3.3.10.2.4 Change the DHCP mode (ipconfig set mode)

```
$ ipconfig set mode Dynamic
ipconfig OK
$ ipconfig set mode Static
ipconfig OK
```

3.3.10.2.5 Change the vlan number (ipconfig set vlan)

```
$ ipconfig set vlan 123
ipconfig OK
```


3.3.11 Software and hardware versions information (id)

3.3.11.1 Read the basic software and hardware information (id)

This command allows to read the software and hardware basic information (software version, phone model, hadware version and serial number)

```
$ id
soft       R200.01.020.1
type       VHE
range      SIP
hard       3MG26001AAAA021041
serial     TEC104100019
builddate  Fri Jan 21 16:37:39 2011
id OK
```

3.3.11.2 Read the extended software and hardware information (id full)

This command allows to read software and hardware extended information (memory size, software components version, ...)

```
$ id full
soft       R200.01.020.1
type       VHE
range      SIP
hard       3MG26001AAAA021041
serial     TEC104100019
builddate  Fri Jan 21 16:37:39 2011
board      3IN1 VHE P3TF
cputype    BCM11107
ramsize    256MB
flashsize  512MB
touchpanel touchscreen_CY8CTMG120
sensekey   613-210041R/R5
boot       1.6
u-boot     1.6
upgrade    1.17
fab        OT8000_E_7_2_2010-09-24_R15B2_Patch20101004a
LinuxVers  2.6.27.18
LinuxHost  ALU-ictouch_vhe-wrlinux
LinuxMach  armv6l
_ictouch              ICTOUCH_R200_20110107_1411
Applications_ill      ICTOUCH_R200_20110107_1042.5879
Applications_sha      ICTOUCH_R200_20110106_1227.940
Appli_infra           ICTOUCH_R200_20110107_1151.2595
Appli_ptf             ICTOUCH_R200_20110107_1219.2048
Audio                 ICTOUCH_R200_20110106_1227.5486
Bths                  ICTOUCH_BTHS_R200_01_018_0_REL_VHE_W047.4_1
LayerM5T              ICTOUCH_M5T_R200_REL_W050.5_1
```

```
LayerPlateformIll     ICTOUCH_PLTF_R200_01.020.1_REL_VHE.4154
LayerWR               ICTOUCH_PLTF_R200_01.020.0_REL_VHE.7423
Middleware            ICTOUCH_R200_20110107_1151.3672
Platform              ICTOUCH_PLTF_R200_01.020.1_REL_VHE.9071
Presentation          ICTOUCH_R200_20110110_1535.4808
Qtlib                 ICTOUCH_LIBS_R200_01_020_0_REL_VHE.4003
Scripts               ICTOUCH_R200_20110107_1411.1555
Shared                ICTOUCH_R200_20110107_1029.4235
Sip                   ICTOUCH_R200_20110106_1227.4814
Sysroot               ICTOUCH_PLTF_R200_01.020.0_VHE_REL.9935
id OK
```

3.3.11.3 Read the software plateform information (id sw)

This command allows to read the software plateform information (software global version, boot, ...)

```
$ id sw
soft       R200.01.020.1
boot       1.6
u-boot     1.6
upgrade    1.17
fab        OT8000_E_7_2_2010-09-24_R15B2_Patch20101004a
id OK
```

3.3.11.4 Read the hardware extended information (id hw)

This command allows to read the hardware extended information (board, CPU, memeory, touchpanel, sensitive keys)

```
$ id hw
board      3IN1 VHE P3TF
cputype    BCM11107
ramsize    256MB
flashsize  512MB
touchpanel touchscreen_CY8CTMG120
sensekey   613-210041R/R5
id OK
```

3.3.11.5 Read the linux plateform information (id linux)

This command allows to read the linux plateform information

```
$ id linux
LinuxVers  2.6.27.18
LinuxHost  ALU-ictouch_vhe-wrlinux
LinuxMach  armv6l
id OK
```


3.3.11.6 Read the software components information (id comp)

This command allows to read the software components (audio, sip, ...) version

```
$ id comp
_ictouch              ICTOUCH_R200_20110107_1411
Applications_ill      ICTOUCH_R200_20110107_1042.5879
Applications_sha      ICTOUCH_R200_20110106_1227.940
Appli_infra           ICTOUCH_R200_20110107_1151.2595
Appli_ptf             ICTOUCH_R200_20110107_1219.2048
Audio                 ICTOUCH_R200_20110106_1227.5486
Bths                  ICTOUCH_BTHS_R200_01_018_0_REL_VHE_W047.4_1
LayerM5T              ICTOUCH_M5T_R200_REL_W050.5_1
LayerPlateformIll     ICTOUCH_PLTF_R200_01.020.1_REL_VHE.4154
LayerWR               ICTOUCH_PLTF_R200_01.020.0_REL_VHE.7423
Middleware            ICTOUCH_R200_20110107_1151.3672
Platform              ICTOUCH_PLTF_R200_01.020.1_REL_VHE.9071
Presentation          ICTOUCH_R200_20110110_1535.4808
Qtlib                 ICTOUCH_LIBS_R200_01_020_0_REL_VHE.4003
Scripts               ICTOUCH_R200_20110107_1411.1555
Shared                ICTOUCH_R200_20110107_1029.4235
Sip                   ICTOUCH_R200_20110106_1227.4814
Sysroot               ICTOUCH_PLTF_R200_01.020.0_VHE_REL.9935
id OK
```

3.3.11.7 Read the rpm information (id rpm)

This command allows to read the installed rpm version

```
$ id rpm
...
ictaudio-22.1_100.0-R200_01.020.1.1_VHE.armv6jel
telephony-21.2_100.0-R200_01.020.1_VHE.armv6jel
...
id OK
```

3.3.12 Ethernet MAC address (mac)

This command allows to read the ethernet MAC address

```
$ mac
00:80:9f:a0:07:6a
mac OK
```

3.3.13 DHCP user class information (dhcp userclass)

This command allows to read and configure the DHCP userclass option used by the phone in its DHCP messages.
This option can be used by a DHCP server to select the appropriate information (IP address, subnet mask, ...) and the appropriate configuration parameters to send to the phone.

```
$ dhcp userclass
userclass use = false
userclass val = ictouch.class0
dhcp OK
```

3.3.13.1 DHCP user class configuration (dhcp userclass use and dhcp userclass val)

This command allows to configure if the phone will embed the option in its DHCP message and its value

```
$ dhcp userclass use true
dhcp OK
$ dhcp userclass use false
dhcp OK
$ dhcp userclass val ictouch.classMarketting
dhcp OK
```

3.3.14 Ethernet ports configuration and statistics (phy and ethernetstats)

This command allows to read and configure ethernet ports LAN and PC (speed and duplex).

3.3.14.1 Ethernet ports configuration information (phy)

This command allows to read the ethernet ports LAN and PC (speed and duplex).

```
$ phy
LAN 100/Full
PC 1000/Full
phy OK
```

The values returned are the currently used ones (which may be different to the configured ones).

3.3.14.2 Ethernet ports configuration modification (phy xxx set)

This command allows to change the ethernet ports LAN and PC configuration (speed and duplex).

```
$ phy lan set auto auto
phy OK
$ phy pc set auto auto
phy OK
$ phy lan set 100 full
phy OK
```

...

Allowed speed values are: 10, 100 and auto.
Allowed duplex values are: half, full and auto.

Note that the gigabit speed (1000) can not be forced. Autonegociation has to used on both sides to use gigabit configuration.

3.3.14.3 Ethernet ports statistics (ethernetstats)

This command allows to read statistics of the traffic on the ethernet ports (LAN and PC).

3.3.14.3.1 Ethernet LAN port statistics (ethernetstats lan)

This command allows to read statistics of the traffic on the ethernet LAN port.

```
$ ethernetstats lan
speed      1000
duplex     full
collisions 0
crcerrors  0
broadcast  779426
ethernetstats OK
```

Ethernet LAN port works in 1000 Mbits full duplex. There were nor collisions, neither CRC errors. 779426 broadcast messages have been received since last reset.

3.3.14.3.2 Ethernet PC port statistics (ethernetstats pc)

This command allows to read statistics of the traffic on the ethernet PC port.

```
$ ethernetstats pc
speed      idle
duplex     idle
collisions 0
crcerrors  0
broadcast  779736
ethernetstats OK
```

There is no PC connected. There were nor collisions, neither CRC errors. 779736 broadcast messages have been received since last reset.

3.3.14.3.3 Dropped frames due to Deny of service protection (ethernetstats cpu)

This command allows to read how many frames have been dropped due to Deny of service protection.

```
$ ethernetstats cpu
DOS packet drop: 0
ethernetstats OK
```

Previous command result means that no frames have been dropped since last reset.
See also Deny of service protection (dos) for Deny of service information.

3.3.15 Display and screen information

3.3.15.1 Screen size information (display)

This command allows to read the phone display size (in pixel).

```
$ display
size 800x480
display OK
```

3.3.15.2 Screen saver management (screensaver)

This command allows to activate, deactivate and configure the screen saver timeout.

3.3.15.2.1 Activate the screen saver (screensaver -on)

This command allows to activate the screensaver. The screen saver is immediately started.

```
$ screensaver -on
false
```

3.3.15.2.2 Deactivate the screen saver (screensaver -off)

This command allows to deactivate the screensaver. The screen saver is stopped (if it was running).

```
$ screensaver -off
false
```


3.3.15.2.3 Configure the screen saver activation timeout (screensaver -timeout)

This command allows to configure the timeout at the end of which the screen saver is activated. Value is in seconds.

```
$ screensaver -timeout 60
```

3.3.15.3 Save a screenshot (fbgrapjpg)

This command allows take a screenshot of the current phone display and save it.
Screenshot file can then be downloaded using the SFTP access (see File transfer SFTP connection).

3.3.15.3.1 Save an immediate screenshot (fbgrapjpg)

This command allows take a screenshot of the current display and save it (/tmp/test.jpg).

```
$ fbgrabjpg /tmp/test.jpg
Converting image from 32 bits
assigning image
writing image
```

3.3.15.3.2 Save a screenshot after a sleeping timeout (fbgrapjpg -s)

This command allows take a screenshot after a given timeout and save it (/tmp/test.jpg).
In the next example, the screenshot is taken 5 seconds after the command is used.

```
$ fbgrabjpg -s 5 /tmp/test.jpg
Converting image from 32 bits
assigning image
writing image
```

3.3.15.3.3 Save a screenshot with a different jpeg quality (fbgrapjpg -q)

This command allows take a screenshot and configure the jpeg quality and save it (/tmp/test.jpg).
By default (without this parameter), the quality is 90%.
In the next example, the screenshot jpeg quality is 50%.

```
$ fbgrabjpg -q 50 /tmp/test.jpg
Converting image from 32 bits
assigning image
writing image
```

3.3.16 Led management (ledstate)

This command allows to get and set the sensitive keys led states (lit or not and color).

3.3.16.1 Read the states of all the leds (ledstate get all)

This command allows to get the sensitive keys led states (lit or not and color if lit).

```
$ ledstate get all
led 1 off
led 2 off
led 3 off
led 4 off
led 5 B
led 6 off
led 7 off
led 8 off
led 9 off
ledstate OK
```

The previous command result means that all the led are not lit except the 5th (O key) which is on with blue color.
Some led may be lit with different colors: led 5 (O) and 9 (home). The others have only one.
For the led having several color possibility, when lit, the value returned is the color. For the led having only one color, when lit, the returned value is "on".
The possible colors are R (red), G (green) and B (blue).

3.3.16.2 Read the state of one led (ledstate get x)

This command allows to get the specified sensitive key led state (lit or not and color if lit).

```
$ ledstate get 1
led 1 off
ledstate OK
```

The previous command result means that the mute key led is are not lit.

3.3.16.3 Set the state of one led (ledstate set x y)

This command allows to set the specified sensitive key led state (lit or not and color if lit).

```
$ ledstate set 4 on

$ ledstate set 4 off
```

To lit multiple color leds, the color has to be used instead of the "on" parameter.

```
$ ledstate set 5 B
```



```
$ ledstate set 5 off
```

3.3.17 Bluetooth management

3.3.17.1 Bluetooth handset pairing passwords

During pairing, default password for the Bluetooth handset is 0000, however some old handset versions only accept password 5555.

3.3.17.2 Read the firmware and software versions (btid)

This command allows to read the terminal firmware version and the handset firmware and software versions.

```
$ btid
#btid#
VHE VER info: DFU= 34
BTH VER info: BIN= 01.011 DFU=34
btid OK
```

The previous command result means that the terminal firmware version is 34 and the handset firmware and software versions are 34 and 01.011

3.3.17.3 Read the terminal local address (btaddr)

This command allows to read the terminal address.

```
$ btaddr
#btaddr#
00:13:7B:54:0F:88
btaddr OK
```

The previous command result means that the terminal Bluetooth address is 00:13:7B:54:0F:88

3.3.17.4 Launch an inquiry (btinquiry)

This command allows to do a Bluetooth inquiry (scan the existing BLuetooth devices in the terminal range).

```
$ btinquiry
#btinquiry#
Found 4 bluetooth devices:
Inquiry result:00:25:D0:B1:C1:A3  cod:0x5a020c
```

```
Inquiry result:00:23:4D:F2:5E:16  cod:0x7c010c
Inquiry result:54:92:BE:B0:BA:51  cod:0x5a020c
Inquiry result:9C:4A:7B:D1:04:2A  cod:0x520204
btinquiry OK
```

The previous command result shows there are 4 other Bluetooth devices in the terminal range.

3.3.17.5 Read the paired devices address (btpair)

This command allows to read all the paired devices address.

```
$ btpair
#btpair#
handset 00:13:7B:54:0E:6D
headset none
btpair OK
```

The previous command result means that the 00:13:7B:54:0E:6D Bluetooth device is currently paired to the terminal.

3.3.17.6 Read the paired handset device address (btpair handset)

This command allows to read the paired handset device address.

```
$ btpair handset
#btpair#
handset 00:13:7B:54:0E:6D
btpair OK
```

The previous command result means that the 00:13:7B:54:0E:6D Bluetooth handset device is currently paired to the terminal.

3.3.17.7 Read the paired headset device address (btpair headset)

This command allows to read the paired headset device address.

```
$ btpair headset
#btpair#
none
btpair OK
```

The previous command result means that no Bluetooth headset device is currently paired to the terminal.

3.3.17.8 Pair a device (btpair set <device Bluetooth address> <device pairing password>)

This command allows to pair a device.

```
$ btpair set 00:13:7B:54:0E:6D 0000
#btpair#
Start pairing
btpair OK
```

The previous command pairs the Bluetooth device 00:13:7B:54:0E:6D pairs to the terminal (device pairing password is 0000).

Note that the device has first to be put in pairing mode.

3.3.17.9 Unpair a device (btunpair handset | headset)

This command allows to unpair a device.

```
$ btunpair handset
#btunpair#
End pairing handset 00:13:7B:54:0E:6D
btunpair OK
```

The previous command unpairs the currently paired Bluetooth handset (00:13:7B:54:0E:6D).
Use **btunpair headset** to unpair the currently paired Bluetooth headset.
Use **btunpair** to read the currently paired devices.

3.3.17.10 Read the paired handset state (btstate handset)

This command allows to read the paired handset state (logical, link and range).

```
$ btstate handset
#btstate#
logical connected
link sniffed
range in
btstate OK
```

The previous command result means that the paired Bluetooth handset device is connected and in range.

3.3.17.11 Read the paired headset state (btstate headset)

This command allows to read the paired headset state (logical, link and range).

```
$ btstate headset
#btstate#
logical notconnected
link notconnected
range out
```

```
btstate OK
```

The previous command result means that there is no paired Bluetooth headset.

3.3.18 Security management

3.3.18.1 PC port protection (pcport)

This command allows to read the terminal ethernet PC port protection status.

```
$ pcport
protection: off
pcport OK
```

The previous command result means that the terminal PC port is not blocked.

3.3.18.2 802.1x authentication (dot1x)

This command allows to read the 802.1x authentication terminal configuration.

```
$ dot1x
MD5:DISABLED
TLS:DISABLED
Login: ALCICT
MAC Use: false
MD5 passwd: <empty>
TLS Server Authent: false
dot1x OK
```

The previous command result means that the MD5 and TLS authentication are disabled, ALCICT is the login (without MAC address addition), there is no MD5 password set and there is no TLS server authentication.

3.3.18.3 Certificate Management (certificate)

3.3.18.3.1 Read certificate

Print info from the active device certificate:

```
$ certificate
[0] Alcatel-Lucent certificate
   Subject: C=FR, O=Alcatel-Lucent, OU=PKI Authority, CN=00809FA0077C
certificate OK
```

List all device certificates embedded in the terminal and their numbers:

```
$ certificate list
List of certificates :
```



```
[0] Alcatel-Lucent certificate
   Subject: C=FR, O=Alcatel-Lucent, OU=PKI Authority, CN=00809FA0077C

[1] Customer certificate
   File is not present.

certificate OK
```

Print the certificate in pem format from the previous list:

```
$ certificate pemshow 0
-----BEGIN CERTIFICATE-----
MIIDDDCCAfagAwIBAgIQE2oqgDyWgFBgpDQ8DGbFxDALBgkqhkiG9w0BAQUwVTEL
MAkGA1UEBhMCRlIxFzAVBgNVBAoTDkFsY2F0ZWwtTHVjZW50MRYwFAYDVQQLEw1Q
S0kgQXV0aG9yaXR5MRUwEwYDVQQDEwxXaXJlZCBQaG9uZXMwHhcNMTAwNTA3MTQ1
MDA5WhcNMzAwNTA3MTQ1MDA5WjBVMQswCQYDVQQGEwJGUjEXMBUGA1UEChMOQWxj
YXRlbC1MdWNlbnQxFjAUBgNVBAsTDVBLSSBBdXRob3JpdHkxFTATBgNVBAMTDDAw
ODA5RkEwMDc3QzCBnzANBgkqhkiG9w0BAQEFAAOBjQAwgYkCgYEAs7UGfhLFtvWw
PlVpV+RrsnBBIgie9eNN1JJC/w4BfuPxJkZ0FsHkbm5Tcnhx4Gwuf10v+ZLrVcrZ
xMHqAkwLnYUL/3Mhc9K9MOHrhUJp3PymU4z7xgLPTjWYOoFBQcViFoYlsx3fv7RK
tshY5onq7waESUtSaxG7Ev9NISqHBGUCAwEAAaNgMF4wDAYDVR0TAQH/BAIwADAO
BgNVHQ8BAf8EBAMCBaAwHQYDVR0lBBYwFAYIKwYBBQUHAwIGCCsGAQUFBwMBMB8G
A1UdIwQYMBaAFNIFozjmVmeshTykIVxkz9JJ28wCMAsGCSqGSIb3DQEBBQOCAQEA
2cq2ZyrHphKz/U+101ZZCZgpca/+dbco1r2kDcuqwqC2FyhGInALTaJd4cPNEvGy
O53Ccy5khvmFvvAdCX/xUgn4zJ0J+IdPC1B7qQV1U9nq4sevOI5PkqenoYr3Aege
mVVhUZm0V0wCbBihSHYbnpw/QeXFoujq14vW3F2BaQZGOvZqJntBkl/EcJO671or
aNFkY44AunXSb0iEXiavR9mTNJYA6sM7AbF71dGCMUKN4hRe0++rrXgLDqdzC1uY
ALIso1zeI4kenAZOAXzcUFHD4VMBnj0HsSYPsvojWkiQh1/C4+pG2LW1kpN17Zd5
U1lwTgr2/RgECyGuQo8oEw==
-----END CERTIFICATE-----
certificate OK
```

Print the certificate from the CA:

```
$ certificate pemshow CA
-----BEGIN CERTIFICATE-----
MIIEBDCCAuygAwIBAgIQNEFd5Yl8pohPnGrxIBVrzTANBgkqhkiG9w0BAQUFADBe
MQswCQYDVQQGEwJGUjEQMA4GA1UEChMHQWxjYXRlbDEWMBQGA1UECxMNUEtJIEF1
dGhvcml0eTElMCMGA1UEAxMcQWxjYXRlbCBFbnRlcnByaXNlIFNvbHV0aW9uczAe
Fw0wNTA5MjgwODE2NDhaFw0yNTA5MjgwODIyMDRaMF4xCzAJBgNVBAYTAkZSMRAw
DgYDVQQKEwdBbGNhdGVsMRYwFAYDVQQLEw1QS0kgQXV0aG9yaXR5MSUwIwYDVQQD
ExxBbGNhdGVsIEVudGVycHJpc2UgU29sdXRpb25zMIIBIjANBgkqhkiG9w0BAQEF
AAOCAQ8AMIIBCgKCAQEAqFvkbQgleG1Rcmo0ZB1+pnItlv75BamMtDmThSjvOiG0
q6Ool4mPApwRgumFD4OTrAasEHCha6V+4MXd+sgxo5+6HiFh3ukmI/iyTeHWcK6
Lrdsej94IKWAiMUiZ+tTqmVW5bfFBXHdt4i+CE6B4Mczl1EYfikh8DOL5ny/PT6Ox
hqgsKXcz/0gDKOzGxbC0tWDtThCafcfy0SWO+gNCoGu2UAKMjOPdspZsdgGzhJyM
qS/6PEWB/ARxYAn3gsHcLA4KR9xQKuInC34uMMPhK5wRxJZKR0CGae9rAQ4rMINz
Ar8la4H4e5sYcyXGDSrFEt8eZoPRop7zpbsqPE6QjQIDAQABo4G9MIG6MA4GA1Ud
DwEB/wQEAwIBBjAPBgNVHRMBAf8EBTADAQH/MB0GA1UdDgQWBBS3H05FtQDd88ea
l2IECNGaTLpKDTAQBgkrBgEEAYI3FQEEAwIBADBmBgNVHSAEXzBdMFsGCSsMAodu
SQAAATBOMEwGCCsGAQUFBwICMEAePgBQAEMAIABBAGwAYwBhAHQAZQBsACAARQBu
AHQAZQByAHAAcgBpAHMAZQAgAFMAbwBsAHUAdABpAG8AbgBzMA0GCSqGSIb3DQEB
BQUAA4IBAQAXgu5a3V3/apu9B7VvYFB6v1MZ4hiPktwvsPaBl2wcbzQF2M/3w2y1
bOdccJjYulel3PqN1wIvn8fkDY2lwT0JfejcZk0WsArtJ+ykfTRw9QruqsDXeSlx
ztPPaLu5cTqfqL3VGyKLvqsjupvo/pnSlCQBMpmleDp9jcW0tNe3zMEDp3DM15uX
PNRxITnaPY6k5ahd07xY0BeJQ9zs4Mw0AVPYqze517QrIFdvoCRg7XwetvZXfRbq
```

```
dxiXVYJx6iXFpS6LqGMPi52SxcATqzJNhcje3RZx1CIWYJ/wMEJFqKgNVS20eU67
Mu7WGFIF+oTCfEY2ic2JJ2Ul5iC05+Ct
-----END CERTIFICATE-----
-----BEGIN CERTIFICATE-----
MIIDtTCCAp2gAwIBAgIKE5R/5gAAAAAABDANBgkqhkiG9w0BAQUFADBeMQswCQYD
VQQGEwJGUjEQMA4GA1UEChMHQWxjYXRlbDEWMBQGA1UECxMNUEtJIEF1dGhvcml0
eTElMCMGA1UEAxMcQWxjYXRlbCBFbnRlcnByaXNlIFNvbHV0aW9uczAeFw0xMDAx
MjgxMTIwMzRaFw0wMDAxMjgxMTMwMzRaMFUxCzAJBgNVBAYTAkZSMRcwFQYDVQQK
Ew5BbGNhdGVsLUx1Y2VudDEWMBQGA1UECxMNUEtJIEF1dGhvcml0eTEVMBMGA1UE
AxMMV2lyZWQgUGhvbmVzMIIBIjANBgkqhkiG9w0BAQEFAAOCAQ8AMIIBCgKCAQEA
5avHo+3mFoZg8dC1OhAVv+JbUfLbggIgJJoxKfD4Fvkl/cu4s2Q5OYQ0EAt75Mr9
M5Z/Zg7n3JOAXbAb2R4stgx24tFQEL6ZxA2gFlA7spgVTz4DwbCiGA40y2Pcb6Gs
ZSzuan5CZTSp22ML4u1nXvH+Nwl9dHqtN7ogheV9bCo2ul0n8oJMJTLMmGCKBTsY
xLdgWWWZtST15M6Lr59sxiqUDa011YrRMDdstnJ3lb2KHTZeEvXD5wVPtOF3IQ6W
m0VtypNuG/s5Mgv5jgqh75VWlG+cWoDOBq+bL198RTYvT0jjqtkHCU24CoWy6prZ
u+WoK7Xh1UvonnkwpnELKwIDAQABo34wfDALBgNVHQ8EBAMCAcYwHQYDVR0OBBYE
FNIFozjmVmeshTykIVxkz9JJ28wCMB8GA1UdIwQYMBaAFLcfTkW1AN3zx5qXYgQI
0ZpMukoNMBkGCSsGAQQBgjcUAgQMHgoAUwB1AGIAQwBBMBIGA1UdEwEB/wQIMAYB
Af8CAQAwDQYJKoZIhvcNAQEFBQADggEBABDcSB0muQs0mglMkL4EKG6OdjeFsmXG
WDzvkn3fleAJmqXku+OMlBoBYwxWZ+9gsiyp96XntODrCyfkfvbaZaMNQBWBvSyu
T6+XAAJlRMZiIEsb6OMjpQZcIotrkAqc7xBUV4GDJ6SvNgnW3YYljQV4Xs8FQDKE
db+uQUUL9GwIgrS0gkcHd/g6ofs+eWHAss9FYh7+lUtSJatN+OiurfjhqOaaZ/64
XT8khpTwXBlGVEtAfjbnd+xFx9CjaOzexPVKFMz7iLXVkrYVjHQsdOnSacx7rdkv
Q60IIaAuN/bs6vwfWeuzo6ATcIFdiCcphZvI3eXP95W4PLLawKXgls0=
-----END CERTIFICATE-----
-----BEGIN CERTIFICATE-----
MIIDcjCCAlqgAwIBAgIIMiV+xBM5RJkwDQYJKoZIhvcNAQEFBQAwOzE5MDcGA1UE
AwwwSVAgVE9VQ0ggU0VDVVJJVFkgTU9EVUxFIC0gUm9vdCBDQS9PPVRIQUxFUy9D
PUZSMCAXDTA5MDczMTIwNTYzN1oYDzIxMDkwODAxMjA1NjM3WjA7MTkwNwYDVQQD
DDBJUCBUTlVDSCBTRUNVUklUWSBNT0RVTEUgLSBSb290IENBL089VEhBTEVTL0M9
RlIwggEiMA0GCSqGSIb3DQEBAQUAA4IBDwAwggEKAoIBAQCD9JglhaXLMLgkx2wW
HVrDVgkw9c4CsnimX1wIeNeh38ym2hov5csObINdO/mrvOlIy9FvZwaxmhreXdDM
4HqNHlsGldzi/Hgp4Nvcx+9h7QQhUdceI/6u+mIqErIWlqZOqz5sIFGjVhThZuex
CERPiSlb8zQLAyIWf2W9JgH4w3PJRgkrUFjdCKJk+FqFNWR7CLo9TF1oqDoqFBuD
gcIdk4Z+SNh3whjjqo7AINhHw5nnn3i5j2bJ/xGdRH+2/i90MYbGGH4B6B+RmLV3
V15Gibh9ifPjx6utXQ4gkQY3ZJeTtlO9qjaUvzKmqepwxUAGGvMeL783ZxsmPsO3
aHsdAgMBAAGjeDB2MB0GA1UdDgQWBBS1x+ddwcWeP0SJLx4qcl+JrJbqDDAPBgNV
HRMBAf8EBTADAQH/MB8GA1UdIwQYMBaAFLXH513BxZ4/RIkvHipyX4msluoMMA4G
A1UdDwEB/wQEAwIBhjATBgNVHSUEDDAKBggrBgEFBQcDATANBgkqhkiG9w0BAQUF
AAOCAQEAN944X4HQ2lOO/zMKTo8orb/3I8KQIU2nyccQbhUK8TOU/giZ3sSynk8o
3sTDB6ZPjKoy6nKamE2+FnQeNEhtk+fbTG0o9TklehCZ1UxgMioAPkpIdTPCT1qw
qefJnkcxYhCt5SaTPFjfYUpKNfOQQ46AmKbgNpha+OOOmoUTcsZU/St7u3v/knm7
Y3xb/dsnsBQXzTg9vYulKy/5BcCOuqEPMqsHbZO8BGT0nT8aQ3jnkNvkPCgKWZZw
z/lsFQfuKGqLhjaG2ja63EjPLbc8B6q4qCymPNKWpGzWdeRNcaiZ/FC+CNtlZ3qY
yUXIqX2cJmg05LylGNg4Zs3ShTZBPQ==
-----END CERTIFICATE-----
certificate OK
```

Important notice : if customized certificate with certification chain has been installed this list includes the certificates from the certification chain of the PKCS12 file.

3.3.18.3.2 Customized certificate

3.3.18.3.2.1 Insert customized certificate

Requirements:

- A customer certificate must be provided by external PKI or embedded PKI from 8770 using the format **pkcs#12** which contains the

private/private keys and requires a password at installation.

- The **Common Name** of the certificate **MUST** corresponds to the **MAC address** of the set.
- Certificate can provide or not the **certification chain**. If provided the certificates from the certification chain will be stored in the **CA list** of the set.
- Alternatively the truted CA can be provided through **an external CTL signed by one of the set** and download on all the other sets in the **CTL List**.

Download a **pkcs#12** certificate using the supplied url with command certificate download <URL> <password> :

```
$ certificate custom
http://135.117.65.230/dmictouch/certificats/cert_vhe_lab.p12 123456
Gathering customer certificate and private key:
  Download completed.
  Extraction completed.
  Downloaded pkcs#12 file removed.
  No CA to verify.
  Files stored successfully.

certificate OK
Waiting 5 seconds before trying to reboot ...
soft reboot requested
popupid is chpup2011060615521922048
```

The password is used to decrypt the file, it might be empty. If the download and the verification is OK the certificate is installed as the new device certificate. **

3.3.18.3.2.2 Delete the customized certificate

Delete custom certificate, using command certificate delete:

```
$ certificate delete
certificate OK
Waiting 5 seconds before trying to reboot ...
soft reboot requested
popupid is chpup201106061558597371
```

3.3.18.3.3 CTL file

Display the presence of CTL file using command CTL :

```
$ CTL
no CTL file
CTL OK
```

Print the certificate from the external CTL signed by other VHE device using command :

```
$ certificate pemshow CTL
File is not present.

certificate OK
```

Erase CTL file with command CTL erase

3.3.18.4 Deny of service protection (dos)

3.3.18.4.1 Configuration parameters (dos)

This command allows to read deny of service protection configuration parameters (thresholds and bursts).

```
$ dos
dos information:
================
Ucast: 15360 128
Mcast: 20480 128
Bcast: 20480 128
OK
```

The previous command result lists the thresholds and bursts for the unicast, multicast and broadcast protections.

3.3.18.4.2 Under attack status (dos summary)

This command allows to read if the terminal is currently under attack.

```
# dos summary
dos attack[ucast:    00000024]
OK
```

The previous command result means that there is a unicast DoS attack in progress and 24 packets have been discarded.

Note that if the phone rests because of the DoS protection, there will be an entry logged in the phone reset cause list (See Check the reset causes)

See also Ethernet ports statistics (ethernetstats) for Deny of service dropped packets information.

3.3.19 Hardware management

3.3.19.1 Hook state (hookstate)

This command allows to read the terminal hook state (on or off hook).

```
$ hookstate
#hookstate#
on
hookstate OK
```

The previous command result means that the handset is on the terminal.

3.3.19.2 Headset plug and hook states (headsetstate)

This command allows to read the headset plug (plugged or not) hook state (on or off hook).

```
$ headstate
#headstate#
plugged no
headstate OK
```

The previous command result means that no headset is plugged.
Only plug or hook state can also be read by using **headstate plugged** or **headstate hookstate**.

3.3.19.3 Backlight activation and deactivation and level (backlight)

This command allows to activate or deactivate the backlight and to set its level.

3.3.19.3.1 Backlight activation and deactivation (backlight set 1 | 0)

This command allows to activate or deactivate the backlight.

```
$ backlight set 1
backlight OK
$
$ backlight set 0
backlight OK
```

Note that this only activates the backlight which will go again to low level state after the configured timeout.

3.3.19.3.2 Backlight level (backlight level x)

This command allows to set the current backlight level. Allowed values are 0 (no light) to 31.

```
$ backlight level 0
backlight OK
```

The previous command result is that the screen will not be lighted.

3.3.20 Voice over IP information

3.3.20.1 RTCP statistics of current call (rtcpstats)

This command allows to read the current call RTCP statistics: RTP packets sent, received and lost, jitter, latency, RTPC packets sent and received, ...

```
$ rtcpstats 0
#rtcpstats#
rtpout          0
rtpin           0
rtplost         0
rtpjitter       0
rtplatency      0
rtcpout         0
rtcpin          0
rtpjittermax    0
rtpinPktLost            0
rtpoutCurrentBitRate    0
rtpoutPeakBitRate       0
rtpinCurrentBitRate     0
rtpinPeakBitRate        0
rtcpstats OK
```

In the previous command, the 0 parameter means the active communication. No other parameter value can be used.

3.3.20.2 Voice over IP statistics of last calls (voipstats)

This command allows to read the last 6 calls voice over IP statistics:

```
$ voipstats 0
#voipstats#

QOS TICKETS on session: 0
    Start Time  = 2011-06-23 15:12:17
    Stop Time   = 2011-06-23 15:12:52
Local Metrics:
        LADDR   =172.25.34.7    :Local IP Address
        RADDR   =155.132.130.116        :Remote IP Address
        LPORT   =6000           :Local Port
        LSSRC   =0x452eed0e     :Local SSRC
        RPORT   =32248          :Remote Port
        RSSRC   =0x26be44c7     :Remote SSRC
        CODEC   =1              :codec id
```



```
        PT      =8              :Payload Type
        SR      =16000          :Sample Rate
        FD      =20             :Frame Duration
        FO      =160            :Frame Octets
        FPP     =2              :Frame Per Packet
        PPS     =50             :Packet Per Second
        SSUP    =0              :Silence Suppression State
        PLC     =0              :Packet Loss
        JBA     =3              :Jitter Buffer Adaptive
        JBR     =0              :Jitter Buffer Rate
        JBN     =0              :Jitter Buffer Nominal
        JBM     =0              :Jitter Buffer Maximum
        JBX     =300            :Jitter Buffer Abs Max
        NLR     =0              :Network Packet Loss Rate
        JDR     =0              :Jitter Buffer Discard Rate
        BLD     =0              :Burst Loss Density
        BD      =0              :Burst Duration
        GLD     =0              :Gap Loss Density
        GD      =0              :Gap Duration
        GMIN    =16             :Minimum Gap Threshold
        RTD     =3150           :Round Trip Delay
        ESD     =44             :End System Delay
        SL      =-34            :Signal Level
        NL      =-67            :Noise Level
        RERL    =75             :Residual Echo Return Loss
        RCQ     =1              :R Factor
        EXTRI   =0              :ext. R Factor
        MOSLQ   =44             :MOS-LQ
        MOSCQ   =10             :MOS-CQ

Remote Metrics:
        LADDR   =155.132.130.116        :Local IP Address
        RADDR   =172.25.34.7    :Remote IP Address
        LPORT   =32248          :Local Port
        LSSRC   =0x26be44c7     :Local SSRC
        RPORT   =6000           :Remote Port
        RSSRC   =0x452eed0e     :Remote SSRC
        CODEC   =1              :codec id
        PT      =8              :Payload Type
        SR      =16000          :Sample Rate
        FD      =20             :Frame Duration
        FO      =160            :Frame Octets
        FPP     =2              :Frame Per Packet
        PPS     =50             :Packet Per Second
        SSUP    =0              :Silence Suppression State
        PLC     =0              :Packet Loss
        JBA     =0              :Jitter Buffer Adaptive
        JBR     =0              :Jitter Buffer Rate
        JBN     =0              :Jitter Buffer Nominal
        JBM     =0              :Jitter Buffer Maximum
        JBX     =0              :Jitter Buffer Abs Max
        NLR     =0              :Network Packet Loss Rate
        JDR     =0              :Jitter Buffer Discard Rate
        BLD     =0              :Burst Loss Density
```

```
        BD      =0              :Burst Duration
        GLD     =0              :Gap Loss Density
        GD      =0              :Gap Duration
        GMIN    =0              :Minimum Gap Threshold
        RTD     =0              :Round Trip Delay
        ESD     =0              :End System Delay
        SL      =0              :Signal Level
        NL      =0              :Noise Level
        RERL    =0              :Residual Echo Return Loss
        RCQ     =0              :R Factor
        EXTRI   =0              :ext. R Factor
        MOSLQ   =0              :MOS-LQ
        MOSCQ   =0              :MOS-CQ
voipstats OK
```

In the previous command, the 0 parameter means the last ended call. For the call before last call, use 1. And so on (until 5).
There are two sets of information: one from the phone itself and another from the phone it was in communication with.
The information returned are based on the RTCP-XR measurements.

3.3.21 Network tools

3.3.21.1 Ping

This command allows send an ICMP message to a remote IP equipment and wait for its answer.

```
$ ping 172.25.34.7
PING 172.25.34.7 (172.25.34.7): 56 data bytes
64 bytes from 172.25.34.7: seq=0 ttl=64 time=0.844 ms
64 bytes from 172.25.34.7: seq=1 ttl=64 time=0.387 ms
64 bytes from 172.25.34.7: seq=2 ttl=64 time=0.389 ms
64 bytes from 172.25.34.7: seq=3 ttl=64 time=0.380 ms
64 bytes from 172.25.34.7: seq=4 ttl=64 time=0.385 ms
^C
--- 172.25.34.7 ping statistics ---
5 packets transmitted, 5 packets received, 0% packet loss
round-trip min/avg/max = 0.380/0.477/0.844 ms
```

It is the linux classic ping command. Use **ping -help** for more information.

3.3.21.2 Traceroute

This command allows to get the route (IP equipments in between) from the phone to another IP equipment.

```
$ traceroute nmc-beta-ts.fr.alcatel-lucent.com
traceroute to nmc-beta-ts.fr.alcatel-lucent.com (135.117.65.230), 30 hops
max, 38 byte packets
 1  frillrcb-c0-tss-1-vl134.fr.alcatel-lucent.com (172.25.34.2)  17.133
ms  2.306 ms  2.267 ms
 2  swbb-c0-1-vl931.net.alcatel-lucent.com (172.25.15.242)  1.431 ms
1.182 ms  1.167 ms
 3  illkirch6-ge0-3-951-imported.net.alcatel-lucent.com (172.25.15.202)
1.086 ms  0.915 ms  0.880 ms
 4  fr-marcoussis-abr-02-a-5-0-0s3.net.alcatel-lucent.com
(139.54.237.173)  16.743 ms  16.372 ms  16.648 ms
 5  colombes6-atm1-0.net.alcatel-lucent.com (139.54.255.2)  19.284 ms
18.617 ms  19.087 ms
 6  frcolr-cs-ba-smi3-1.net.alcatel-lucent.com (139.54.248.138)  24.129
ms  23.023 ms  31.667 ms
 7  frcolr-cs-ba-smi3-1-vlan900.net.alcatel-lucent.com (135.117.106.1)
21.742 ms  19.896 ms  20.296 ms
 8  frcolr-cb-ba-smi3-1-vlan911.net.alcatel-lucent.com (135.117.106.10)
33.355 ms  21.993 ms  21.309 ms
 9  nmc-beta-ts.fr.alcatel-lucent.com (135.117.65.230)  19.284 ms  19.815
ms  19.190 ms
```

Previous command result shows, for example, all the routers between the phone and its OmniVista 8770 (nmc-beta-ts.fr.alcatel-lucent.com).
An IP address can also be used (instead of a FQDN).
It is the linux classic traceroute command. Use **traceroute -help** for more information.

3.3.21.3 ARP table content (arp)

This command allows to get the phone ARP table content (MAC - IP address association).

```
$ arp
? (172.25.34.116) at 00:80:9f:8d:00:e4 [ether]  on eth0.134
? (172.25.34.7) at 00:80:9f:a0:07:6a [ether]  on eth0.134
frillrcb-c0-tss-1-vl134-vrrp.fr.alcatel-lucent.com (172.25.34.1) at
00:00:5e:00:01:86 [ether]  on eth0.134
```

It is the linux classic arp command. Use **arp -help** for more information.

3.3.21.4 Current routing information (route)

This command allows to get the phone current routing information.

```
$ route
Kernel IP routing table
Destination     Gateway         Genmask         Flags Metric Ref    Use
Iface
172.25.34.0     *               255.255.255.0   U     0      0        0
eth0.134
default         frillrcb-c0-tss 0.0.0.0         UG    0      0        0
eth0.134
```

It is the linux classic route command. Use **route -help** for more information.

3.3.21.5 Port mirroring (mirror)

This command allows activate the LAN port mirroring to PC port: all the frames exchanges on the LAN port are also copied to the PC port.
Once activated, it allows to connect a PC to the PC port and run a network capture (wireshark for example) and capture all the LAN port traffic.

3.3.21.5.1 Check current activation state (mirror)

```
$ mirror
idle
mirror OK
```

Previous command result shows that the mirroring is not activated.
If activated, command returns **lan** meaning the LAN port is mirrored.

3.3.21.5.2 Activate and deactivate (mirror set lan / mirror set idle)

To activate LAN mirroring:

```
$ mirror set lan
mirror OK
```

To deactivate LAN mirroring:

```
$ mirror set idle
mirror OK
```