

One Number, One Bill, Any Terminal,
Anywhere!



Network Convergence

The Need for Network Convergence

- Internet is becoming the primary, low-cost way of offering voice, data and multimedia services.
- VoIP's market share is growing, and causing churn of minutes for wireline and wireless operators.
- Voice has already become a commodity. Innovation in services portfolio is critical to maintain and increase revenues and to prevent customer churn.

Argela Network Convergence Solution removes the boundaries of telecom helping network operators expand their market beyond their geographical area and allows them launch innovative, revenue generating services.

Solution Highlights

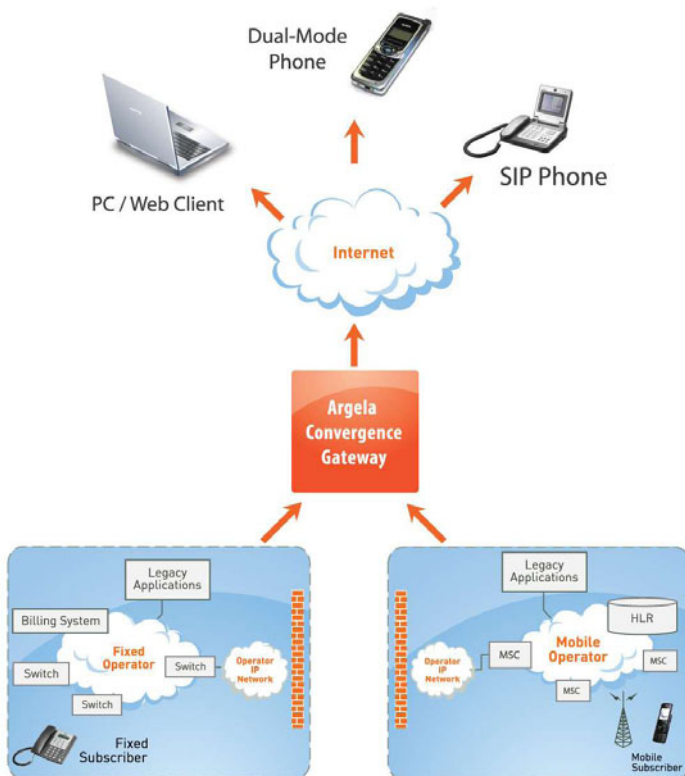
Enabling cross technology communication and delivering on total communications need!

Argela's Network Convergence Solution is provided by a patented technology innovation named Convergence Gateway(CGW). It enables wireless and wireline network operators to extend their various voice and other traditional services as well as introducing new multimedia services of Internet domain to broadband and IMS users.

Argela CGW is offering between Internet, fixed and mobile convergence for mobile and incumbent operators, thus providing their customers with network and location agnostic access to their services with no change or investment in core network.

Argela CGW provides border management functionality between telecom networks and Internet and hence allows for traditional fixed or mobile services as well as many other new multimedia and cross-access networks services to be provided to existing, broadband and IMS subscribers, regardless of whether they are under the fixed, mobile or the IP coverage. It achieves this by translating SIP messages into SS7 and vice versa, and by keeping track of the subscriber's IP location on Internet side and connecting to the legacy networks switching infrastructure.

Argela SIP Client



Key Benefits

For Operators

- Global coverage availability for local operators
CGW integrates operators' network with Internet, extends their possible coverage over and above their traditional access network (radio or wireline) and provides an infrastructure that allows for mixed access (legacy and IP) technologies, making them global players with global target markets and innovative new services.

- New markets entry & new business models support such as sponsored call, sponsored RBT, home-zone billing...etc CGW opens up new markets and new business models for telecom operators that are not restricted with telecom operators' traditional 'local' and 'mobile' markets. Suddenly, they can have new subscribers that have never been addressed.
- Decrease in revenue leakage to VoIP operators
- Increase in new services' revenue & ARPU
- Increased subscriber loyalty by offering the most innovative services & by creating communities
- For those operator groups that have both mobile and incumbent operators, opportunity of providing the subscribers with cross network services such as bundled GSM and fixed tariffs
- Additional traffic that would otherwise not be possible CGW helps the operator capture lost revenues due to travelling users who would not make phone calls because roaming charges are high or because they do not have access to GSM coverage.
- Improved call completion rates
- Interconnect/roaming savings
- CapEx & OpEx reduction by migrating some of the circuit switched traffic from BSS to Internet and IP networks saving radio access bandwidth
- Improved network security & availability

For end - users

Individual Customers

- One account for all calls
It extends the subscriber's account to cover their VoIP service needs. Subscribers don't have to have a separate account from a VoIP operator to initiate IP originating and/or IP terminating calls; their operator account is sufficient, prepaid or postpaid. In other words:
 - Subscribers can initiate calls wherever they are, provided that they have IP connectivity.
 - Subscribers can be accessed wherever they are, provided that they have IP connectivity.
 - All using the same unique number, same account.
- Subscribers can access their 'mobile' for 'fixed' services even when they are out of the traditional coverage of the operator,

- without having to pay excessive costs for the services.
- Subscribers can start enjoying new services such as instant messaging and presence, Video calling, File sharing, click-to-dial, etc.

Corporate Customers

- CGW allows total telecommunication services to be provided to corporate customers with services that are accessible around the world, rather than only answering their local telecommunication needs.
- Network Convergence Solution presents them an alternative option for offloading their office traffic over IP, rather than costly fixed cellular terminals.
- Companies can attach their corporate directory allowing all their employees to use the easy to use click-to-dial feature of Convergence Gateway, reducing their virtual network traffic costs.
- CGW, with FCT replacement with Residential Gateways in PBXs, significantly decreases the infrastructure and transmission costs.

Key Features

- One Number, One Bill, AnyTerminal, Anywhere
- SIP to Legacy, Legacy to SIP, SIP to SIP call origination and termination
- Turn key installation with Argela SIP Clients (Web-based, Downloadable, Mobile SIP Clients) which can emulate a virtual cellular phone if needed
- SMS, MMS, USSD origination and termination, IM to SMS and IM to MMS conversations
- Availability of different mobility handling and domain selection methods such as Virtual MSC/VLR and IN based Call handling depending on network type (IMS; GSM; PSTN etc..) and network capabilities (INAP, MAP, CF)
- NeDS function in IMS/VCC specification
- Deployment as a turn key solution with Argela's own Media Gateway, or with Media Gateways from other suppliers controlled by the Convergence Gateway using MGCP/MEGACO protocols



- Instant Messaging and Presence
- Video support, SIP to SIP and SIP to/from 3G-324M
- File Sharing
- Centralized Address Book
- Customized White and Yellow Pages with Click to Dial feature
- Integration to the legacy charging and billing systems for seamless service charging, and billing of services to the same account-prepaid or postpaid
- IMS Support; SIP & Diameter support
- Support for standard messaging protocols such as SMPP, UCP, CIMD, MM7, POP3 etc. for support of seamless messaging services over IP
- Support for VoIP and SIP signaling security by utilising secure RTP and TLS transport
- Support for Network Address Translation with RTP Bridge
- Firewall-friendly installation
- USB Phone Support
- Efficient Voice and Video Codecs
- N+1 redundancy and scalability
- Virtually unlimited performance by near-linear scalability
- Real-time performance statistics
- Creation of components on Argela's patent-pending Messaging and Distribution (MAD) framework, whose modular architecture allows a high degree of flexibility in deploying, configuring and operating the Gateway

- Subscribers can now have their 'shadows' or their 'beneficiaries' on IP that can generate traffics (either IP-to-IP-to-lageacy) and pay for the traffic they generate. Telecom operator collects the charges from the core subscriber for a traffic that is generated in many different parts of the world(!) by their 'shadows' or their beneficiaries'.
- Subscribers can now access to the same services while they are on Internet or IMS domain but still get charged to the same identity; but this time, accessed over IP.
- Subscribers can initiate IP terminating calls just as they initiate mobile/fixed terminating calls.
- Enterprise subscribers of the Telecom operators can now enjoy one account for all their mobile, fixed and IP terminating calls; Telecom operator collects the charges from the enterprises for a traffic that was never considered as a traffic that is charged by Telecom operators.
- Subscribers can now have conference calls with legacy and IP legs simultaneously.
- New multimedia services of Internet domain can be introduced to existing subscribers of telecom operator such as video calling, video conferencing, instant messaging and presence.
- All value added services can now have both legacy and IP legs, removing the artificial separation of these worlds and providing the subscriber a sense of seamlessness; messaging, video, mail, entertainment and information services and others.
- Traditional RBT application may be coupled with video so that, when a call is originated from IP, either destined to the GSM or IP world, a personalized multimedia ringback video can be displayed on the originating party client.
- Argela Multimedia Sponsored Call application defines a new channel for advertisement and a new business model for operators. Utilizing the unique features of Argela Advertising Platform, Argela Multimedia Sponsored Call enables advertising companies to relay their messages to their target market, allowing end-users to make free or discounted calls.
- IP Centrex application provides enhanced communications services to enterprise customers without installing any systems on customer's premises.



Possible Services Enabled By Argela Convergence Gateway

Once the underlying access networks are merged, there pops up the Pandora's box wide open for endless variations of new and existing capabilities and services for subscribers, corporates and surely for new generation operators...

“Using Argela’s convergence solutions, we now have a global coverage area expanding our market beyond geographical limits and offer value added services including IPTV, video call, life-style services on video phones and many more.”

Dr. Paul Doany, CEO, Turk Telekom

Network Convergence
Service Delivery & Enablement
Multiplay SDP
IPTV
Targeted Advertising Solutions
Number Portability
Professional Services
Services Infrastructure



ARGELA
it's the passion

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