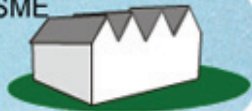


Residential



SME



Corporate



DATAFLEX

SIP and Supplementary Services

Although SIP has become the signalling protocol of choice within NGN networks, we are some way from achieving the goal of homogeneity across all domains. There is still a significant deployed legacy of ISDN and analogue equipment in enterprises as well as service provider networks.

Because of this heterogeneous environment, communications service providers extending services and connectivity into the enterprise domain need to be confident that they can seamlessly migrate legacy equipment to their preferred new architecture, typically based on SIP signalling and session control.

The issue doesn't just apply to the primary control mechanism. It also affects dedicated supplementary services that have been used in the enterprise domain to request special features and functions from their local devices. In the ISDN world, many services were requested using special key combinations on a telephone keypad: for example, to transfer a call to a colleague or to establish a multi-party call. Legacy PBX devices had a host of these supplementary services that enabled more effective communications within the enterprise.



SIP interworking with legacy devices is a critical issue

The problem is that SIP, by definition a simple, scalable protocol does not have the same breadth of specialised capabilities. This is an issue for communications service providers that wish to migrate customers with legacy equipment to their network, or even to new hosted service offers.

The problem can be looked at in two ways:

- 1** Enterprises or SMEs that have legacy equipment and want to enjoy their existing supplementary services while migrating to NGN connectivity
- 2** Communications service providers offering hosted solutions with new supplementary services to customers with legacy devices

In case 1, we are confronted with service continuity issues.

In case 2, by problems with service compatibility.

Fortunately, Dataflex is able to solve both problems!



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Dataflex supports backwards compatibility and new service introduction to legacy environments

All of the Dataflex Multi Service Access Gateways and Integrated Access Devices support full interworking between SIP and legacy protocols, such as ISDN (Primary and Basic Rate). However, the interworking goes beyond support for basic session establishment, allowing communications service providers to map specific functions between the enterprise and carrier domain.

This takes advantage of capabilities enabled by the SIP INFO and SIP REFER methods. SIP INFO allows users to request services during an active session, in a similar way to that in which supplementary services are requested in legacy ISDN devices. This was largely based on keypad input and the generation of DTMF signals to the controlling PBX logic. Thus, a user can make a request for a specific feature using legacy DTMF inputs, which are then conveyed across the SIP network to the relevant session control platform. This can then interpret the input and apply the requested service.

SIP REFER conveys the ability to transfer calls between users, either within the local network or to an external, wide area network. SIP REFER essentially brings traditional call transfer methods, such as blind transfer and supervised transfer into the NGN world. It does so by allowing a SIP agent to determine the status of another. This means that a user can determine if a call can be redirected to another party and make the appropriate transfer request.



SIP REFER and INFO extend basic SIP functionality and increase its attractiveness

By allowing for such capabilities, SIP REFER extends the SIP protocol to encompass additional functionality that is both widespread and desirable within the enterprise. This means that communications service providers can ensure support for existing call transfer services in legacy environments and also introduce new call transfer capabilities to hosted solutions.

Dataflex supports both important extensions to the basic SIP protocol in its Multi Service Access Gateway and Integrated Access Devices, allowing communications service providers to address both issues identified. This is important, because the communications service provider can reliably support both service continuity when introducing replacement services, and offer rich new services that are compatible with existing offers.

Dataflex can also support additional interworking schemes to ensure delivery of additional legacy services from SIP servers to legacy environments and the introduction of new services in hosted offers. This ensures the broadest market acceptance for communications service providers seeking to address the entire enterprise and SME market, and helps build differentiation to recruit and retain customers.

About Us

Founded in 2003, Dataflex supplies enterprise access solutions to communications service providers around the world, ensuring seamless network connectivity and smooth migration towards next generation services for their enterprise and SME customers.

Dataflex's access solutions enable the delivery of all classes of enterprise communications services, from voice to video to data, providing a single access point from the carrier network and bridging the gap to the enterprise. A single ViNE platform combines multiple features and capabilities, allowing each ViNE solution to service a variety of functions simultaneously.



Dataflex ViNE Solutions combine critical functions into a single, scalable range of Multi Service Access Gateway and Integrated Access products

Voice Gateway

Data Router

Firewall

QoS

Local Proxy

Ethernet

Session Border Control

NAT

xDSL

WLAN

Versatile Gateway Solutions for Service Providers

Dataflex's Multi Service Access Gateway solutions help communications service providers meet CAPEX goals by providing simplified deployment options and eliminating the need for dedicated PSTN gateways.

Dataflex's ViNE range also supports OPEX control goals through lightweight management requirements, such as auto-provisioning and self-installation, reducing the cost burden of managing customer connections.

Dataflex's customers include fixed, mobile, cable and VoIP operators, which all share a common goal: to deliver world-class services to their enterprise customers, both now and in the future.

Dataflex is the missing link that enables this to happen.

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