

# **Introduction to NetBorder Suite for Contact Centers**

Real Operations, Real Users, and Real ROI  
over IP Infrastructure

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## **Overview**

Enterprise and Contact Center communications are rapidly embracing the power of VoIP. It is not a question of if VoIP will ever be deployed or not anymore. Real operations, real users, real ROIs are now achieved over IP infrastructures. Private Branch Exchanges (PBX), Automatic Call Distribution (ACD), Interactive Voice Response (IVR) systems, Predictive Diallers (or Outbound Dialling), Recording systems are all moving rapidly towards the IP infrastructure. Along the way, SIP has become the standard of choice to provide intelligent signalling between applications, telephones, gateways, media servers, etc. VoIP deployments in the enterprise can take multiple configurations. Typically, implementations tend to be deployed gradually, growing out of the legacy infrastructure.

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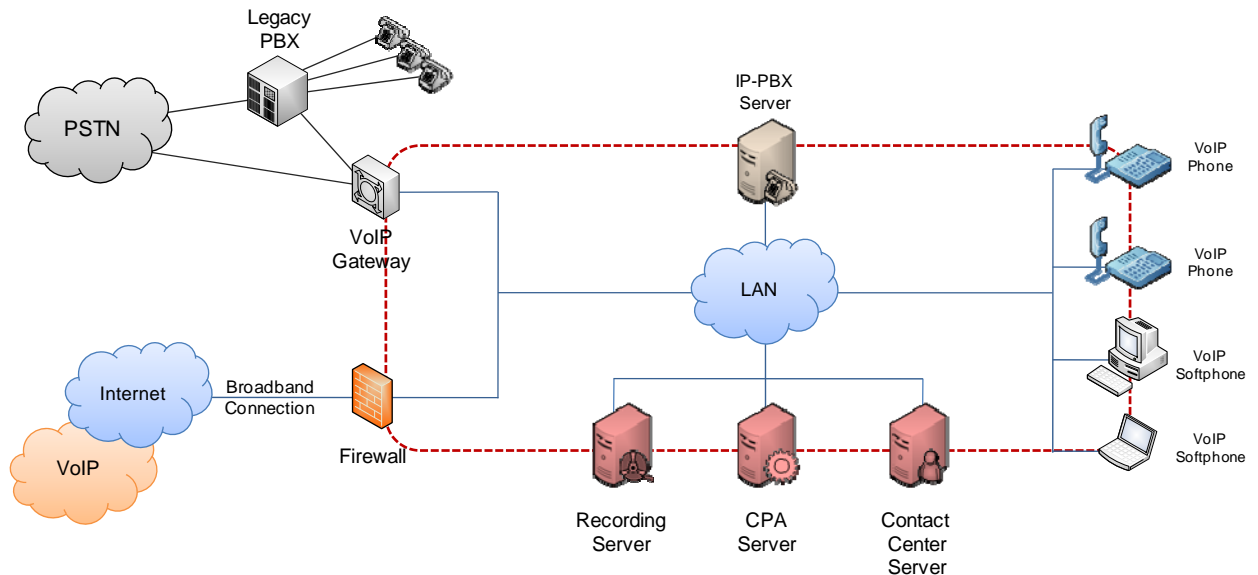
## **Where to Begin**

A first possible step for an enterprise is to convert a department to VoIP. This is done by adding a VoIP gateway to convert the TDM traffic, an IP-PBX Server and a number of SIP phones.

A next possible step is to interconnect with a VoIP Service provider, bypassing the need for TDM leased-lines (T1, E1). This is commonly known as SIP Trunking. This step requires that SIP aware devices (NAT, Firewall, VPN, ALG, Session Border Controllers) be deployed at the edge of the network to protect the customer's network while allowing SIP traffic to pass.

Another possible step is the conversion of the contact center onto this IP infrastructure. In this case, multiple SIP servers are deployed on the network, introducing many more levels of network complexity: Contact Center Servers, Recording, IVR, etc.

**Figure 1: VoIP deployment in the Enterprise**



Not shown on the diagram for readability, but there are several other levels of SIP complexity that can be introduced:

- Remote at-home agents / multi-site
- Unified communication servers
- Enhanced Services platforms (conference bridges, voice mail systems, IVR, etc.)

The net effect quickly becomes an interoperation nightmare as:

- Exponential SIP interoperation complexity
- Inflexible hardware platforms
- Possibility of losing functionality in the transition (ex. Recording, where you used to tap the physical lines, does not really apply anymore in VoIP!)

Therefore, the implementation of SIP applications and VoIP in the enterprise requires the capability to interconnect and reach a plethora of network types and end-points that support multiple physical interfaces, network topologies, media types, protocol variations and security policies.

### **Managing Complexities**

With such a varied landscape, the deployment of SIP applications becomes extremely complex. What emerges is the need for a solution that shields SIP applications from these complexities and intricacies. Re-using our earlier Network diagram, wouldn't it be nice to have a platform that would shield the application servers from having to interwork with all types of IP endpoints.

Something that would:

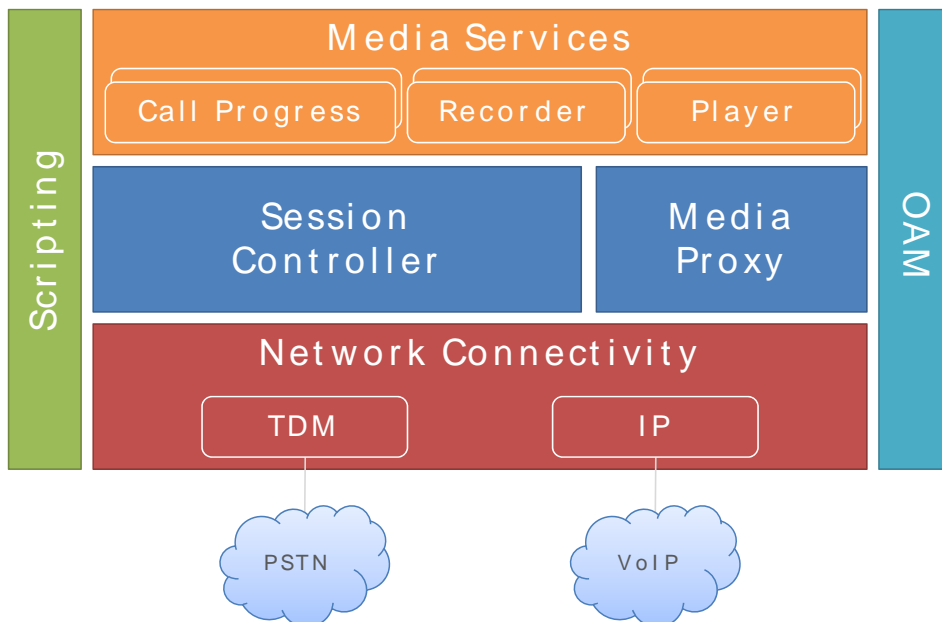
- Provide Network connections with both the new networks (VoIP) and the legacy networks (TDM)
- Provide Session Control and Mediation between various network types
- Provide Media Processing services as required, depending on the applications.

### **Enter: NetBorder**

NetBorder Suite for Contact Centers is a VoIP Session and Media Controller, a new class of product for VoIP deployments in the enterprise. NetBorder is comprised of four major software subsystems:

- Session Controller
- Media Proxy
- Media Services
- Network Connectivity

**Figure 2: NetBorder Suite**





Each software subsystem has its own scripting and OAM components for increased flexibility and manageability.

With NetBorder, these software subsystems combine to provide the necessary network connectivity, signalling proxy, signalling harmonization, media processing, media conversion and call control scripting to remove the complexity from SIP applications and end-points.

Note that as part of the NetBorder Media Services, lies a box labelled Call Progress. This Call Progress Analysis unit is there to deliver unparalleled performances in Outbound Dialling Contact Center Operations.