



A Next Generation Local Government

Leveraging Existing Technologies
to Drive Efficiencies



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In the town of Maastricht in the Netherlands, it's a shared services center; in Mannheim Germany, it's a fully virtualized communications environment and for the US City of Scottsdale it's SIP.

These are just some of the many routes being taken to modernize and improve municipal and local government across the world.

Even when approaches differ, objectives tend to stay broadly the same: to streamline administration and reduce (or at least contain) cost; to drive new social and environmental welfare reforms; to improve service delivery.

Ultimately, while there are many roads, the destination for local government is the social and economic wellbeing of citizens. Suffice it to say that the role of the IT department in both enabling and driving this vision is vital.

The challenge

We know there are plenty of challenges along the way – from the daily task of keeping the lights on, through patching Bring Your Own Device (BYOD) security holes to delivering the kind of transformation projects that clearly demonstrate the critical importance of what ICT professionals are doing.

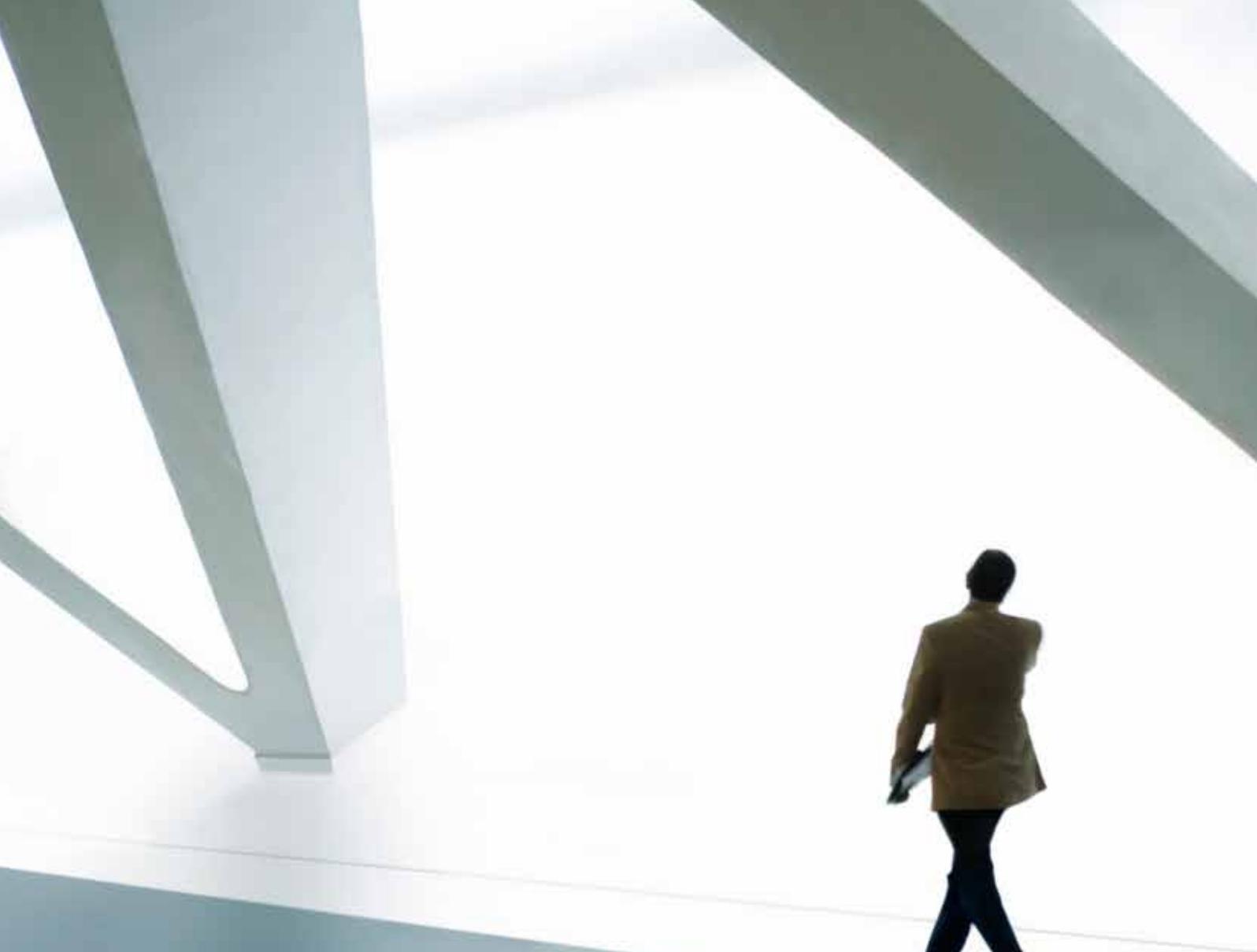
Here, one of the biggest potential barriers is legacy. Let's face it; if you were asked to build, from the ground up, a platform to support today's new ways of working, address appropriate levels of security and staff permissions, and provide low cost, high speed access to a host of eGovernment services, chances are the network wouldn't be the intensely complex environment we see today.

But we are where we are, and there's no one single answer. However, moves to virtualize applications and architectures can tackle some of the more significant problems; not least how IT leaders can maximize return on their current IT estates without having to rip and replace.

Therefore, the purpose of this paper is to take a pragmatic look at transitioning communications services to the cloud. It addresses the key question of which kind of cloud best suits federal and local authorities, uncovers the opportunities, and provides guidance on how IT can best deliver against the objectives of today's federal and local authorities.



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The natural emergence of cloud

In the US, as with most other regions, the National Association of State CIOs puts cloud computing firmly at the top of the IT priority list. In fact, it's been there for quite some time.

Back in 2011 the office of the CIO of the United States published the Federal Cloud Computing Strategy. The document describes how the US Federal Government has instituted a Cloud First policy. That same year, the United Kingdom published its G-Cloud Program, which included a Cloud First initiative modeled on that of the US.

These clearly articulated federal government positions on cloud - like those in other nations - are intended to accelerate the pace at which the government will realize the value of cloud computing by *requiring* agencies to evaluate safe, secure cloud computing options before making any new investments. Why? According to text in the US' strategy document "in order to maximize capacity utilization, improve IT flexibility and responsiveness, and minimize cost."

Despite this, many agencies remain in the *evaluation* stage for cloud. They have committed to *evaluating* cloud as a viable and potentially preferable alternative but are not actually *deploying* cloud solutions. While local government decision makers may increasingly be convinced that there will be benefits, they are often unsure about how to proceed with a transition to cloud services.

Defining 'the cloud'

To date, most local governments developing a cloud strategy have focused on one of two cloud architectures - public or private. Using public cloud resources is often dismissed as bringing the risk of security issues that government officials are loathe to introduce. Private cloud, where the locality builds and runs its own data center full of applications, brings its own concerns. The amount of capital and staff expense required seems to misrepresent the defining benefits of cloud architecture - an OPEX versus CAPEX model. That is not to say that private clouds cannot be outsourced to a trusted third party and looked after as part of a compete managed service with equipment either on or off premise.

As 2014 progresses, more decision makers are coming to realize that the answer is to leverage select cloud solutions and architectures (including hybrid clouds) to meet their dynamic process and technology challenges. Government organizations seeking that balance between scalability and security will gravitate towards public compute and the use of public networks and servers, along with private cloud storage where the agency can retain control over their most sensitive and valuable asset - data. The hybrid cloud model allows for agencies to maintain control of their data while fully maximizing cloud economics.

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The Role of Collaboration Technology in the Cloud

As we have seen, cloud is the next evolution in IT architecture, and can refer to infrastructure, platforms and applications. If we narrow the discussion to applications, one type that already has a history of successful local government deployment and is well-suited to address the challenges government IT professionals face are collectively known as “collaboration technologies.” This section explores the features and attributes of collaboration technology, the various ways they can be deployed in the cloud and the specific local government IT issues they can address.

Consolidate Redundant Voice, Messaging, Conferencing and Video Platforms

Collaboration technologies typically begin with voice communications. In local governments, this has traditionally been supplied by a PBX system. If there has been a major upgrade in the past ten years or so, the PBX will be based on IP technology. If older, it may still run outdated digital technology. Some local governments are still served by Centrex, a telephone company service popular in the 1990s.

Since that PBX in service today was installed, in most local governments a series of voice and collaboration solutions have been added to address specific agency or project needs. A new location across town or in another city meant the adding another PBX or key system that doesn't integrate with the main location - unless of course they choose to lock themselves into a single vendor, which brings its own cost challenges in the long run.

Many local governments have not taken advantage of the available solutions to integrate e-mail with voice and mobile phones. An agency that needs to have video conferences with a federal counterpart installed an expensive video conferencing room that is rarely used since no one is aware it even exists.

Today's collaboration technology, offered as a cloud application, goes far beyond merely replacing dated voice communications technology. A private, public or hybrid cloud voice communications platform is the foundation for an integrated suite of voice, mobile, video, messaging and conferencing applications. It reduces deployment time and expense as users have one identity across all applications that can be managed from a single web interface. A single platform that can support dozens of locations and multiple agencies simultaneously can bring significant economies of scale.

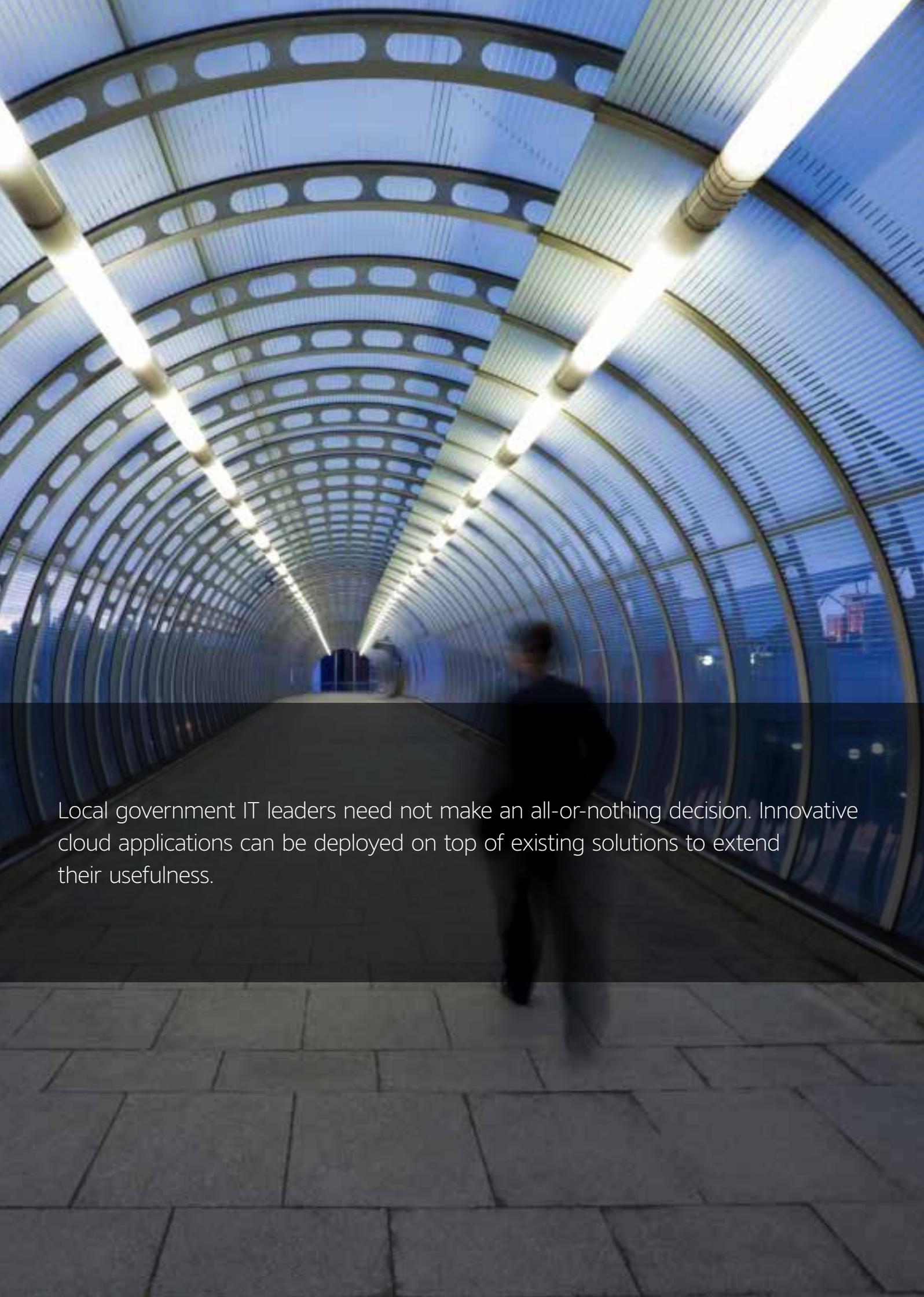
Moving from Digital to IP and SIP Networking

As local government agencies grow, move their operations, or create new services, aging communications infrastructure based on digital technology has proven to become a barrier to further growth. The expense of expansion and maintenance along with rigid digital T1 and ISDN network architectures is a serious limitation to growth and a catalyst to re-examine the underlying technology.

The move to IP infrastructure allows operations to be centralized in private or cloud data centers, with employees able to work virtually anywhere Internet connectivity is available. IP also allows for public network access to be consolidated with more flexible and less expensive SIP trunks and in the future will bring access to emerging technologies like WebRTC.



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Local governments have found the business case for SIP trunking to be quite compelling, particularly in comparison to their existing tie-trunk and ISDN contracts, often with legacy carriers as part of a “Centrex Service” solution. Part of what drives the cost reduction is the new carriers that exclusively deliver SIP trunks are introducing more competition to the industry.

Enhance Existing Platforms, Expand Over Time

One common concern of local government IT professionals as they consider moving applications to the cloud is the presumed difficulty of a “flash cut.” It is often existing premises-based vendors using FUD tactics (fear, uncertainty and doubt) warning that a move to the cloud means abandoning all current investment - that may not yet be fully depreciated - and completely replacing everything.

But local government IT leaders need not make an all-or-nothing decision. Innovative cloud applications can be deployed on top of existing solutions to extend their usefulness. The overwhelming success of Salesforce.com in both the public and private sector is a resounding proof-point on both the immediate value cloud-based applications can offer and their ability to integrate with existing applications and back-end data.

Collaboration and Continuity in the cloud

Collaboration and mobility applications offer a wealth of opportunities to add much-needed functionality - like extension of collaboration features to smartphones - “over the top” of any existing communications infrastructure.

Cost saving SIP-based IP telephony, productivity-enhancing unified communications (UC), citizen-engaging contact centers and more can all be delivered from the cloud. And because of the flexible nature of a virtual model, can be deployed rapidly, hosted securely and managed remotely on or off premise, depending on the authority’s requirement. But one thing is clear with cloud: it doesn’t require a major rip and replace of existing infrastructure.

For example, IP telephony solutions from vendors such as Unify can be deployed as an overlay to today’s PBX network - and even over multiple PBX networks should individual agencies have their own independent networks. Chosen locations can then be migrated to IP telephony immediately, with others being transitioned when the time is right. This allows the entire user community to immediately take advantage of news services regardless of the fact that they may still be served by an old PBX.

It’s not just about the network of course. Streamlining integration of new collaboration and mobility tools with existing line of business applications - including email and web conferencing - is a critical element in any migration.

Here, the functionality of Unify’s OpenScape Fusion comes into play. This allows legacy applications, from vendors including Microsoft, IBM and Cisco, to be seamlessly and securely integrated. Not only will integration here enhance the functionality of the existing tools, it enables organizations to fully maximize the value of these assets in a new, more connected and mobile environment.

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Collaboration Supports Flexible, Mobile and Remote Working

It is no exaggeration to say that in congested metropolitan areas commuters spend hundreds of hours a year stuck in rush hour traffic. For more than a decade, the Maryland state government in the US has allowed its employees to craft more flexible schedules (e.g., 10 am to 7 pm instead of 8 am to 5 pm) and other local governments have done so as well.

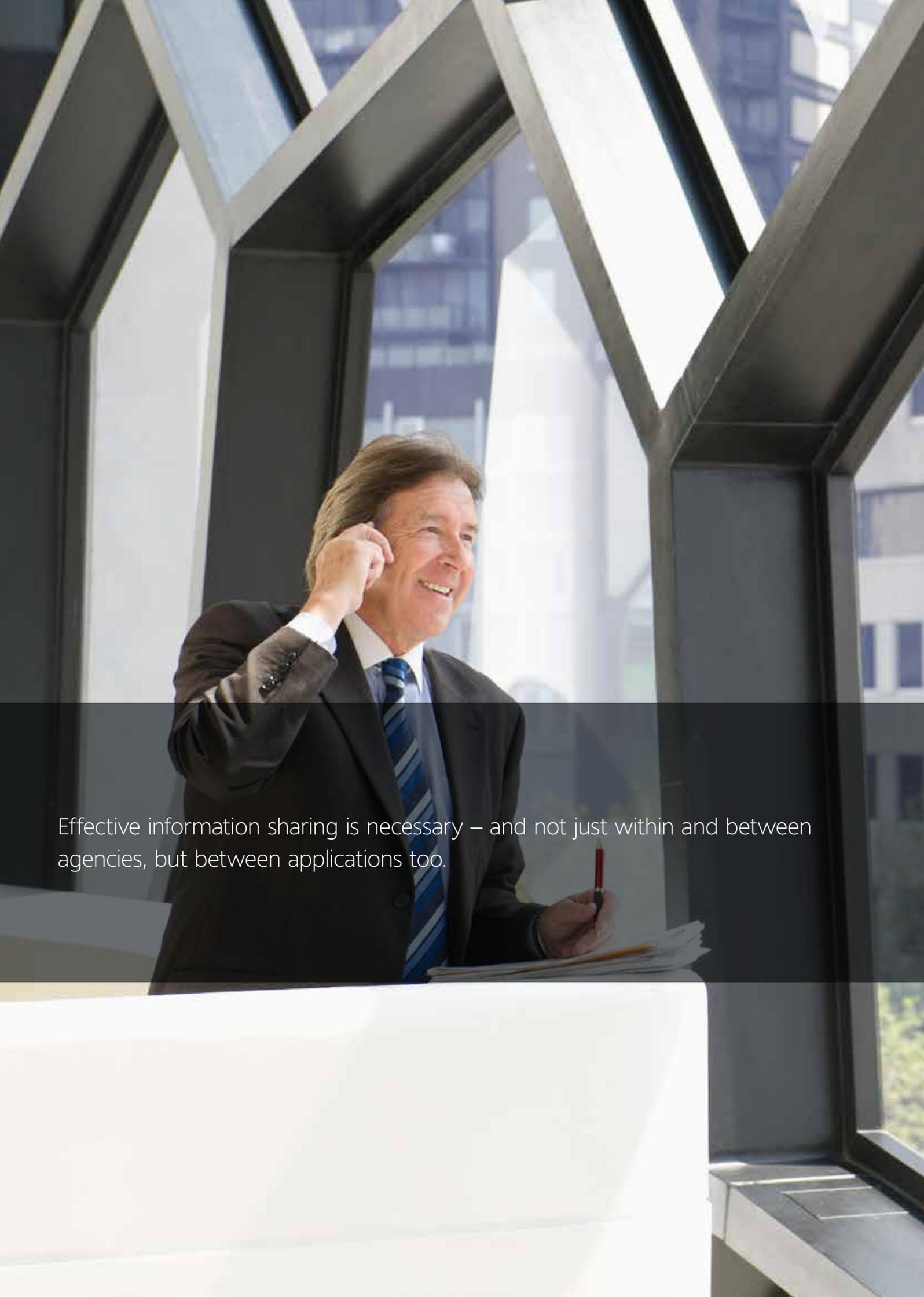
In fact, a 2014 study by Mobile Work Exchange found that 17% of state and local government employees are eligible to telework, a proportion that is projected to grow significantly over the next five years. But the majority of the local government IT managers surveyed (58 percent) said that their agency is not mobile ready - they do not adequately provide the plans, tools and support necessary to manage a mobile workforce.

So what steps should local government IT professionals be taking to become more mobile-ready?

One of the keys to success is to take a top-down approach to rolling out a mobile program. Too often, discussions of mobility focus on discrete components, e.g., mobile device and mobile application management. Mobile policies, procedures and security should be thought of as part of a broader collaboration technology plan. It is important, then, to choose a collaboration suite that allows users to seamlessly move from the mobile, to the wireless, as well as the wired network with ease.



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Unifying Collaboration into Processes and Applications

Government agencies are by nature information-intensive organizations. To satisfy their information requirements, effective information sharing is necessary - and not just within and between agencies, but between applications too. Access too is critical - regardless of where staff are located.

While delivering on these objectives is a complex task, it is one dramatically simplified by delivering communication and collaboration through the cloud.

Cloud-based data and applications don't always exist in a public cloud; many agencies make data and applications available via private clouds, deployed in government owned and/or operated data centers. Cloud Application Programming Interfaces (APIs) allow government applications to access data while configuration APIs can be used to provision new users or manage resources across applications.

Unify Solutions

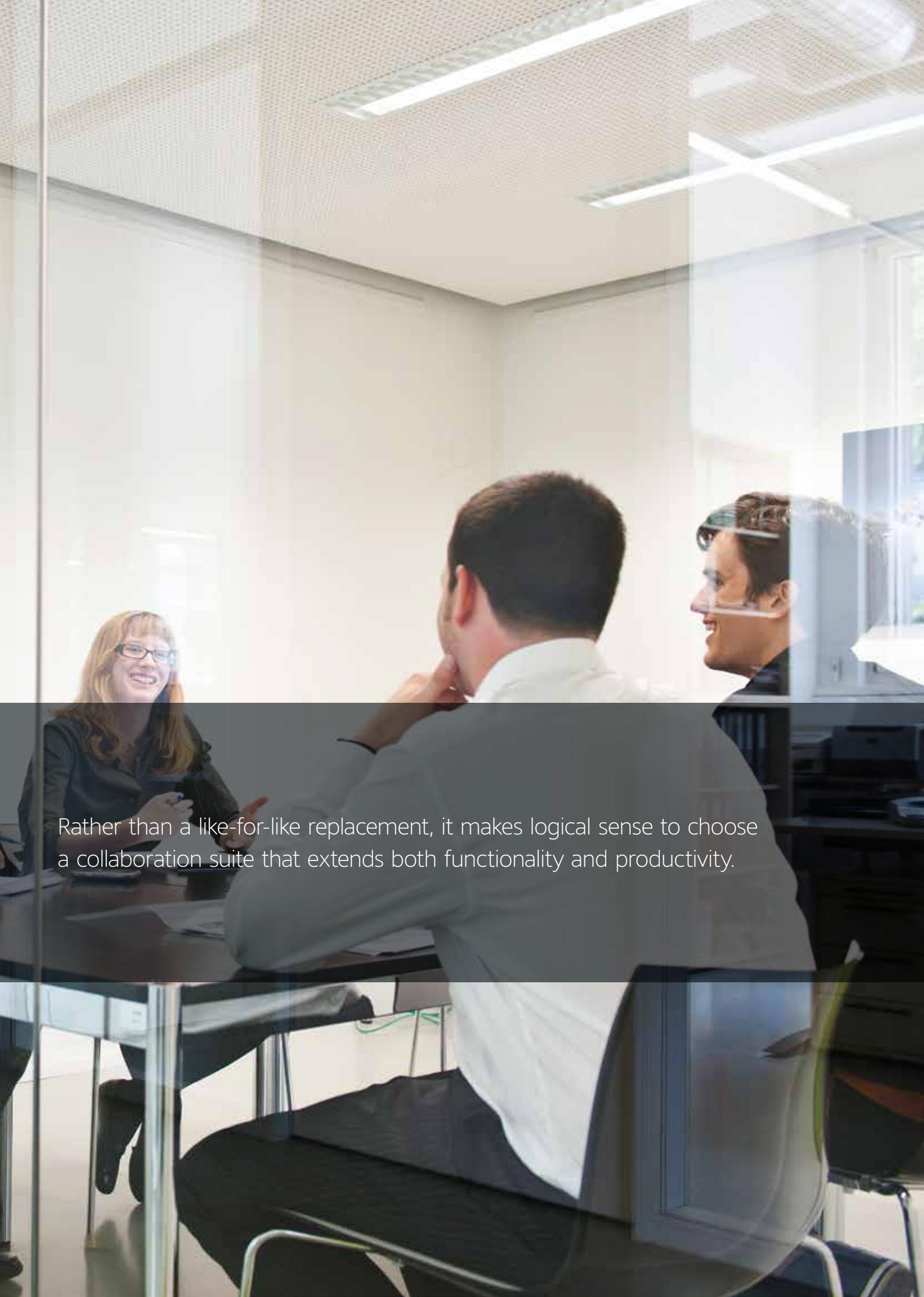
Unify, for example, is one such vendor able to offer a solution. On record as working with thousands of public sector organizations across the world, it provides a suite of cloud-based communications and collaboration solutions that seek to resolve the technical and operational challenges of legacy - overlaying and integrating voice and UC applications to allow straightforward migration.

Its OpenScape Voice platform provides the cornerstone application for public cloud/hosted edition solutions. A 100% SIP-based enterprise Voice Over IP (VoIP) solution based on an open architecture, it supports multi-tenancy up to 6,000 business groups to allow organizations to "build their own cloud". This high degree of customization according to specific requirements enables the "host" institution to extend voice and UC services to other partner organisations.

With carrier grade routing and translation for both public and private cloud and overlay deployments, OpenScape Voice and OpenScape UC deliver access to a range of communications services over existing PBX infrastructures, in addition to straightforward transition to IP when required. OpenScape Fusion offers the line of business application integration so necessary in today's multi-vendor world, while OpenScape Cloud Contact Center brings together voice, email, messaging and social media to enhance citizen engagement.

Circuit by Unify takes collaboration to another level, in any existing OpenScape or multi-vendor environments. Bringing voice, video, screen share, messaging and file sharing together anywhere, it sits atop the existing communications infrastructure to allow more natural conversation, in context and on any device, in the cloud.

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Ultimately, the Unify portfolio allows federal and local authorities to easily, securely and cost effectively move into cloud – synchronizing voice services with a range of productivity-enhancing applications – mobility, video and web conferencing, chat, messaging, presence, one-number service and more.

So while state & local agencies may have an immediate need for replacement of communications infrastructure at a subset of locations that has reached end-of-life, rather than a like-for-like replacement it makes logical sense to choose a collaboration suite that extends both functionality and productivity.

Unify's OpenScape Voice and unified communications does this – allowing enhanced messaging and mobile features to be shared by all locations, not just those replacing the communications infrastructure. Over time, that single platform can replace the voice communications for all locations as well as be the foundation for exciting new emerging collaboration technologies based upon WebRTC clients.

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About the Author

Sheila McGee-Smith, the founder and principal analyst at McGee-Smith Analytics, is a leading communications industry analyst and strategic consultant with a proven track record in new product development, competitive assessment, market research, and sales strategies for communications solutions and services.

About Unify

Unify is one of the world's leading communications software and services firms, providing integrated communications solutions for approximately 75 percent of the Fortune Global 500. Our solutions unify multiple networks, devices and applications into one easy-to-use platform that allows teams to engage in rich and meaningful conversations. The result is a transformation of how the enterprise communicates and collaborates that amplifies collective effort, energizes the business, and enhances business performance. Unify has a strong heritage of product reliability, innovation, open standards and security.

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