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Expanding Unified Communications Across Ohio – Cloudy with a Chance of True Enterprise Collaboration!



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<https://soh.sp.ohio.gov/sites/ngts/SitePages/Welcome Page.aspx>

Executive Summary

Under Governor Kasich's leadership, Ohio launched an IT Optimization initiative that is transforming the way Ohio manages its' IT infrastructure and delivers IT services. The main objective of IT Optimization is to lower the State's total IT costs and redirect those savings into improved IT services as well as programs and services that directly benefit Ohio citizens and businesses. One of the primary focus areas for IT Optimization is the development and implementation of enterprise shared solutions. Enterprise shared solutions address common technology needs by providing tools and application platforms that promote collaboration, communication and data analysis across multiple agencies.

For the past few years, Ohio agencies, boards and commissions have been adopting a hosted unified communications solution replacing many old, outdated phone systems, including conferencing systems and video bridge solutions. The adoption of this enterprise shared service is making the state more efficient, and reducing costs in the process. The service can be consumed by all state agencies, boards, and commissions, as well as all public colleges and universities, K-12 schools, local governments and libraries.

Voice over Internet Protocol (VoIP) and unified communications will help Ohio realize its core IT Optimization goals of increasing efficiency, improving service, reducing complexity and delivering savings. The migration of all state agencies, boards and commissions to the hosted VoIP solution will reduce complexity and the added costs of managing multiple phone systems. Also, as adoption of the service increases, the rates decrease, allowing Ohio to realize more savings. Hosted VoIP will allow state agencies to get "out of the phone business" so they can focus on their primary missions.

Recently, other parts of the "Ohio enterprise" outside of traditional state government have begun adopting the solution as well. This is not only saving them money, but adding to the savings for the overall enterprise thanks to a tiered pricing model.

The service is hosted by Cincinnati Bell Technology Solutions (CBTS). It runs from two highly redundant data centers in Ohio. Built into the solution are many groundbreaking items such as all of Ohio being considered a local call (cutting approximately 80% of the state's long distance charges), a new state of the art live captioning service that Ohio has been beta testing for the hearing impaired, e911, and the utilization of OARnet for delivery. OARnet is the statewide fiber optic backbone that is used to connect government, schools and universities. Over 80 agencies, boards, commissions, counties, municipalities, K-12 schools, universities and libraries are benefitting from the solution today, which now has over 28,000 users.

Concept

The State of Ohio realized years ago that it no longer needed to be in the phone business. Now others across Ohio are coming to the same realization. The dollars spent and resources allocated to maintain a costly and outdated telecommunications infrastructure can be re-allocated and used in support of unified communications initiatives that provide direct value to the citizens of Ohio. In direct alignment with the goals of IT Optimization, the unified communications effort continues to expand.

Many phone and communications systems are in use across local government, including counties, municipalities, K-12 schools, libraries and public colleges and universities. Ohio's workforce is now much more mobile and modern; a collaborative, enterprise solution that goes beyond the boundaries of traditional state government is now required to provide essential services to Ohio citizens. The hundreds of systems that are in use are often costly and cumbersome to maintain and volume buying power is very limited, preventing Ohio from realizing savings. Ohio's rural areas need the same access to communications, but often times are limited in what they can implement due to the availability of personnel and expertise to cost effectively deploy and maintain unified communications systems. Leveraging newer collaboration technologies between governmental entities is an opportunity to overcome the challenges presented by differing platforms and infrastructures.

Meeting the needs of all potential users can also be difficult. Enabling users that may be hard of hearing or visually impaired is important to meeting not only regulatory requirements, but also important to empowering users with diverse needs to be able to communicate effectively and participate in the workforce. As a result of these identified needs, the State of Ohio began deploying a cloud based, hosted unified communications solution a few years ago. The solution is provided by Cincinnati Bell Technology Solutions (CBTS) and managed by the State of Ohio. The initial focus of the effort was to retire the state's outdated Centrex phone system as well as aging agency VoIP solutions as they reached end of life. The State of Ohio also wanted to exit the phone system business and consume services much like a utility service. This allows the state to focus its resources not on phone systems, but on delivering services to citizens. To date, the solution has been deployed across most Ohio agencies, boards and commissions, over 28,000 devices are now migrated.

Now that the VoIP foundation is in place, the State of Ohio is focused on expanding the unified communications services to better meet the needs of Ohio's citizens. The solution recently added e911, conferencing, video, telephony, Accesaphone, enhanced call centers and other communications related items. In addition, the solution has been designed to easily incorporate local governments, K-12 schools, higher education, libraries and others. Their participation adds to statewide savings due to a unique tiered

pricing model. Participation from local governments, K-12 schools, higher education and libraries is critical because Ohio's contract offers tiered pricing discounts up to 200,000 users, which is much more than the 45,000 or so state employees.

Significance

The State of Ohio is nearing the end of its initiative to implement VoIP (Voice over Internet Protocol) across state agencies, boards and commissions. However, as mentioned above the current focus is on further engaging local governments, K-12 schools, higher education, libraries and other entities that could leverage Ohio's growing unified communications solution. To date, nine counties have successfully adopted the solution, as well as one K-12, and numerous state supported institutions of higher education. By leveraging OARnet, the statewide high speed backbone, they are all connected to the enterprise solution and leveraging the enterprise pricing to reduce costs for all. Many other governmental bodies in Ohio are in the process of adoption, including over 30 more counties, and cities. Nelsonville, Ohio reports that this solution will save them over \$50,000 a year. For a small city, this could be another police officer on the street or another project for the community that would not be possible without these savings.

Recently, the Columbus Metropolitan Library and its many branches joined the solution, allowing them access to all of the tools on the hosted solution. They are very happy with the service, and other libraries across the state are inquiring about joining as well. They too have seen the significance of exiting the communications infrastructure business, allowing them to save money and sharpen their focus on their customers.

Not only does the solution offer savings initially, it also serves as a platform for collaboration and partnership. The ability to leverage communications technologies across government such as video, without having to figure out how to make disparate systems talk to each other, as was done in the past, simplifies and facilitates collaboration across governmental boundaries. It also allows for more efficient delivery of solutions to citizens.

A number of new services have been added to the unified communications solution in response to customer needs. For example, the Enhanced Contact Center offering, which was initially built out due to a County Shared Services initiative need, allows smaller agencies and entities that could otherwise not afford this type of advanced technology the ability to use it. This offering includes agent desktops that are integrated with data, speech-to-text, advanced IVR, auto dialers, quality management, workforce management, and much more. Small counties and cities can now use these tools too. It enables them to use multi-channel communications such as chat, text and mobile capabilities. Providing the entire Ohio enterprise with the ability to leverage such

technologies, and utilize enterprise solutions and pricing in the process, is a big victory for Ohio taxpayers.

In addition, a system wide license for accessphone, a technology suite that offers tools to assist those with vision, hearing or mobility related deficiencies, was also recently added to the unified communications offering. While the suite has helped many, for those with hearing loss, a captioning solution was also needed. In direct response to this need, the state worked with Tenacity, the makers of the accessphone suite of products, to add a live captioning solution to the offering. The vendor that previously owned this tool wanted out of the business; therefore, Ohio suggested that they work with Tenacity to transfer this solution to them. As a result, Ohio was the very first beta tester for this solution. A small subset of Ohio agency users has been instrumental in helping develop a solution that will soon be available to other business users around the world who have a need for a captioning solution.

The captioning solution, now known as Hamilton Captel for Business, powered by Tenacity is in beta 3, with a release to the public anticipated within the next 60 days. Users register through Hamilton, and once approved are granted access to the solution using an app on their Cisco phone on their desk. Users can login, and then calls are live captioned for them to read in real time, allowing users that are deaf or hard of hearing a solution on their desk that allows them to participate in daily work using the phone. Ohio has about a dozen users across multiple agencies testing this solution and providing feedback to make sure it is ready for the enterprise prior to release.

Impact

Through the selection of a cloud based VoIP and unified communications solution, Ohio is able to reduce capital costs for voice and video infrastructure across the Ohio enterprise, including the cost of upgrades, licensing and support (e.g., moves, adds, changes or deletes). The solution also decreases the dependency and cost of VoIP staffing and it meets data center requirements. Ohio will also be able to more effectively leverage the current IP network investment, increase the predictability of the monthly cost of telephony, take advantage of cutting-edge technology and speed-up the introduction of new features. Ohio's unified communications approach also enables those that may be too small to afford advanced features the ability to use innovative tools to fulfill the needs of those they serve.

In addition to some of the features already mentioned, the chosen solution also provides:

- Every participating organization access to an extensive call detail reporting system on demand, to manage and report on phone usage
- Video phones that allow for up to twenty people to be on a video call at no additional charge

- Unified communications features like find-me follow-me, and support for mobile and home-based workers
- VoIP phones that are four, eight, or 16 line phones, which eliminates the cost for extra lines or shadow lines
- At least one free Meeting Place Audio Conference Bridge for every participating organization, and additional bridges can be purchased for \$6.61 per month
- Flexible e911 capabilities using 911 Enable
- A secure solution that offers tier three data centers, encryption and full redundancy
- Basic and enhanced contact center abilities
- Access to tools that enable employees and help meet ADA needs
- Video and collaboration integration with tools such as Skype for Business
- Fax2Mail to eliminate fax machines and automate work related functions that require the use of fax
- Access to emergency notification abilities through the integration of Informacast

State agencies are reporting that as a result of the increased use of video and collaboration tools, travel costs are being reduced and productivity is increasing due to employees not having to travel throughout the state for meetings. For example, the Auditor of State's office now uses video instead of having personnel travel to quarterly meetings. The Ohio Department of Administrative Services (DAS) is also taking advantage of the newly implemented video service. DAS is leveraging the collaboration tool to conduct presentations for agencies instead of requiring resources to travel to each meeting. This is making the state more agile; state agencies are now able to communicate more efficiently with their partners and consequently effect change faster.

Also of significant impact, is the overall structure of the CBTS contract, which through its tiered pricing model allows Ohio to achieve considerable savings. Local government, K-12, state supported institutions of higher education and libraries may also join the service, increasing the potential savings and allowing them to focus on their core missions instead of running phone systems.

Very few organizations have taken the opportunity to "get out of the phone business". As was discussed in the book, "The Big Switch" by Nicolas Carr, electricity was also thought to be a unique and differentiating technology in the late 1800's and some organizations even had Vice Presidents of Electricity to figure out how to leverage this then "new" technology. Today, that is unnecessary. Tomorrow, running your own phone system will be looked at in the same light.

Ohio's VoIP and Unified Communications solution is also in direct alignment with many of NASCIO's State CIO 2016 priorities, including: security, consolidation/optimization, cloud services, budget and cost control, and legacy modernization.

It is estimated that this solution will save state government over two million dollars per year, and that does not include the other local government, K-12, institutions of higher education and libraries that are beginning to participate. According to the Ohio Office of Budget and Management, the state actually saved 5.3 million dollars in the first 18 months of adoption. With adoption nearing 30,000 users, the rate will drop from \$12.86 per month to \$12.73 per month for all subscribers. Participation continues to increase; the more that adopt, the more Ohio will save. In essence, the State of Ohio has gotten out of the telephone business, choosing to consume telephony as a utility and allowing more focus on their core mission – serving the citizen.

With the addition of video, the state's ability to leverage unified communications technology to save taxpayer dollars, as well as to deliver services to citizens and businesses is greatly enhanced. Many agencies are beginning to install video conferencing room based systems in regional offices to enhance operations, reduce travel expenses and increase training opportunities. Video conferencing is also being used to more efficiently deliver counseling services to inmates, as well as to enhance collaboration.

The addition of new features such as the Enhanced Contact Center allows all participants access to advanced tools to better provide customer service to citizens, and allows citizens' access to Ohio through multiple communication channels. The incorporation of accessphone and the Hamilton Captel for Business captioning solution, provides the hearing impaired with greater access to services. It also helps to further empower them and makes it easier for them to perform their daily job duties. Other applications and uses for unified communications are constantly being considered as the install base grows.

Another direct benefit of VoIP is a more robust, resilient and improved network. While the network had to be upgraded and updated to support VoIP, the outcome is a better network with a more standardized, secure and structured approach that is now capable of supporting many future IT efforts.

The future looks bright for unified communications in Ohio. Not only is adoption spreading throughout the state, but local governments, K-12, state supported institutions of higher education and libraries are beginning to embrace the hosted service model. The more adoption increases, the greater the savings for Ohio's taxpayers at all levels of government and education, and for Ohio as a whole.