

THE CHALLENGE

As Microsoft and Google continue to make a real dent in the market with Office 365 and G-suite, organizations are increasingly encouraged to embrace cloud services. However, studies and surveys consistently show that the greatest single deterrent to cloud adoption is the fear around security and privacy. A recent survey of Enterprise and SMB customers across the world shows that Security remains the single biggest inhibitor towards increased cloud adoption. Fully 61% of respondents cite that as the #1 concern about moving their data and workloads to the cloud.

Recently, the Embassy Group, a world leading real estate developer, who adopted Office 365 grappled with a data security-related problem - ensuring safe backup of data residing on employee laptops.

Like many organizations, they had a legacy solution in place which backed up endpoints to a local storage target, and the process of managing (adding, removing and configuring) users was quite manual. The legacy solution also didn't use modern protocols like https and relied on firewall ports to be opened manually to allow their proprietary protocol to execute on the endpoints – which was not only labor-intensive but also viewed by Embassy Group as a security risk. Further, the existing solution required significant investment in terms of a physical server class machine along with a copy of Windows Server OS and MS SQL Server.

Having a local backup also meant that another copy had to be made and sent off-site to satisfy business continuity requirements. As a result, Embassy's IT team started working through the possibility of having a backup solution which utilized enterprise cloud storage.

It turns out, that in order to allow migration of several of their digital assets to the Microsoft O365 cloud, the company had 1TB of cloud storage per employee, as part of their Office 365 plan.

While trying to solve their endpoint backup problem, they realized that they could perhaps use the OneDrive storage as a backup repository rather than invest additionally in cloud storage.

Forecasted 2018 global public cloud spend: \$160B

The Construction industry spend on public cloud is growing rapidly at a CAGR of 37.36%

But, as stated earlier, the public cloud, poses a bevy of challenges for a business' security team.

CLOUD REALITIES

Most public cloud vendors today offer to encrypt the data sitting in their data centers, but the encryption comes with some risks.

- Most public cloud vendors own and control
 the encryption keys, or in the least retain the
 ability to decrypt data with keys the customer
 might actually control. This means that they
 are in a position to decrypt data at any time
 and gain access.
- Public cloud vendors don't usually go out of their way to access their customers' confidential data, but the chances of a cloud provider gaining unwarranted access to critical customer data is far too likely for the comfort for most enterprise security teams.

 Also, if asked by government bodies to turn over sensitive data, many public cloud vendors have no choice but to immediately comply and share data in decrypted form, because the laws of the land may require them to do so.

THE SOLUTION

What the Embassy Group needed was a backup solution which was sensitive to the security needs in a public cloud. A solution which would

- Allow the business' digital assets to be stored securely in the cloud without allowing unauthorized access to anybody outside the organization.
- Be able to use modern protocols such as https which didn't require opening up special firewall ports.
- 3. Be high performing, sensible in terms of network bandwidth usage, scalable across geographies and cost effective.
- 4. Integrate with Active Directory to allow seamless user management and authentication.
- 5. Allow roaming users to backup data securely from anywhere

Parablu was able to offer a solution that addressed these needs perfectly. Parablu's Secure Storage Container, BluKrypt™ with its secure cloud gateway has been designed to protect enterprise data in the cloud. BluKrypt™ doesn't merely encrypt data – it obfuscates it thoroughly. File names, folder names, etc. become undecipherable on the target storage when BluKrypt™ is in use. Files may also be chunked up into smaller components and encrypted separately.

BluKrypt operates on an important principle in encryption called the Segregation of Duties (SoD). When done correctly, SoD is a risk and security measure that ensures no two parties can perform the same part of a critical process or function. By dividing responsibilities and limiting access to information and data on a strictly need-to-know basis, organizations can significantly reduce

350% Global increase in Ransomware attacks

65% of construction businesses experienced a Ransomware attack last year

Global Threat Intelligence Report

their risk. Many organizations already successfully implement SoD in other areas of their business, such as in their finance teams.

BluKrypt ensures that piecing together data off the target cloud storage is completely impossible unless the user authenticated themselves appropriately, at which point, BluKryptTM de-obfuscates and decrypts the data back to its original form.

BluKrypt helped enforce SoD for Embassy, by encrypting data before it ever leaves their trusted environment and ensured that they retain sole custody of the keys. Thus, by deploying the BluKrypt™ Gateway inside their network perimeter and routing all backup traffic through it, Embassy was able to ensure that the backup data stream was encrypted on-premise before it travelled to its Microsoft OneDrive destination. This encryption is persistent in that it isn't just encryption "in-flight" - the data remains encrypted with Embassy's keys even once the data reaches the cloud destination and is at rest. Also, Embassy holds and retains complete control of the encryption keys. Embassy's IT team wisely recognized that enforcing strict SoD is also an important step towards satisfying current and future privacy regulations such as the GDPR.

Parablu also offered BluVault – a full-featured Backup and Recovery solution - to be deployed on the organization's endpoints. The simple-to-use software allows for flexible scheduling, incremental backups, deduplication of files, file versioning, retention policies and easy self-service restores by end user. Intuitive policies allow flexibility on types of files and folders that are included or excluded from backup.

Further, by placing the BluKrypt™ Gateway in the DMZ, Embassy is now able to extend data protection to their roaming and traveling workforce. With BluKrypt™ gateways deployed, data in each location is always in sync with a central Backup Management Server called the ParaCloud which provides continuous access to the Master Catalog of all backed up data. Therefore, an employee or their endpoint system, no matter where they are currently located, always enjoys seamless access to data. Their files are decrypted by the BluKrypt™ gateway most proximal to their location and is served up to them with no fuss. Because of the elegant, distributed nature of the solution, Parablu can scale to hundreds of offices and company locations with ease.

Parablu's integration with Active Directory also meant that the company could now automatically provision and de-provision users without manual intervention, and use techniques like AD Group Policy Objects to distribute agents to their endpoints.

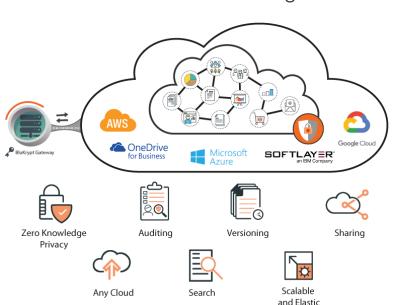
Reduced risk of data loss, ensuring high availability of critical data with reliable backup and restoration in minutes

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Parablu's unique approach to endpoint backup, which can leverage end-user cloud storage subscriptions, is a real game-changer. With Parablu's BluVault, we now have an enterprise-class endpoint data protection solution, handling both in-premise and roaming users. Parablu's integration with Microsoft Active Directory has made user management simple and we are now able to protect users in multiple locations. The product's centralized management combined with enterprise-class auditing and reporting, has truly eased up the burden on the IT team.

• Dr. Batheiah, CIO Embassy Group

Parablu's Secure Storage Container



Over and above this, with BluVault deployed, the client benefits from network bandwidth optimization, flow control, resume-able backups, compression, partial file transfers, mass deployment mechanisms, audit trails, as well as dashboards and reports for compliance purposes.

PARABLU ADVANTAGE

While other solutions offer to encrypt data inside the network perimeter, Parablu is unique in adopting the approach of a privacy gateway. This effectively allows the endpoints to offload the burden of encryption and decryption without affecting performance of an employee's endpoints. Further, this approach supports scalability by allowing a small number of gateways to easily stay in sync with each other instead of potentially unlimited number of endpoints.

With over 22TB of data securely backed up for close to 600 of their key employees, Embassy is happy to have made the "leap to the cloud". Not only do they have a recent copy of all their valuable endpoint data in a safe, physically separated location, they're able to accomplish this by leveraging their existing OneDrive for Business subscriptions and without any new investment in cloud storage.

Parablu's mission is to help customers feel secure taking their business to the cloud. We are focused on ensuring privacy, confidentiality and security of our customers' digital assets no matter where they reside - public, private or a hybrid cloud.

70% savings on TCO by utilizing OneDrive for Business storage

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Parablu's BluVault has made it easy for us to protect endpoint data across all our office locations. The excellent support we received greatly reduced the effort we had put into the deployment. And their innovative use of OneDrive for Business helped us leverage our investment in Microsoft Office365.

 Pavan Raju, Information Security Manager, Embassy Group

ABOUT US

Parablu, an award winning provider of secure data management solutions, engineers new-age cloud data protection solutions for the digital enterprise. Our Privacy Gateway powered solutions protect enterprise data completely and provide total visibility into all data movement. Our suite of products include: BluKrypt - a Privacy Gateway that completely secures critical data on the cloud, BluVault - a powerful and secure data backup solution designed for the cloud, BluSync - a secure file sharing and collaboration solution for the agile enterprise, and BluDrive - a secure file transfer solution. These solutions easily integrate with your existing infrastructure making it a seamless solution for your enterprise data protection and management needs. Get a demo today.