Orchestrating a brighter world

NEC

UNIVERGE BLUE
Backup as a Service (BaaS)

B&A

Your Future.
Our Mission.

Customer

- B & A

Industry

- Government, Public Sector

Challenges

- Multiple providers and support contacts with disparate protocols
- No visibility or access to third party data center, to ensure compliance
- Complex billing with varied incremental costs

Solution

- HYDRAstor high performance, resilient back-up storage
- SDN access to NEC back-up infrastructure
- Iron Mountain Data Center- for high security requirements
- Expert BaaS Data Management by trained, certified NEC staff

Results

- Verification of data location in FISMA high data center
- Visibility into backup system reporting, ensuring compliance
- Assurance of stable monthly billing and simplistic charges
- Documented retention and Service Level compliance
- Ability to market new BaaS capability to government clients
- Leading BaaS software complies with strictest guidelines and allows for hybrid cloud deployments

Headquartered in McLean, Virginia, B&A is a leading information technology systems integrator providing solutions through six primary service offerings: Modernization & Transformation, Agile Delivery, Integration & Analytics, Certified Hosting, Operations & Enablement, and Human Capital Management. Services span strategic, enterprise, application, and technical infrastructure, including customized and Commercial-Off-The-Shelf applications.

B&A has a 30-year history of serving the Federal Government as a trusted agent and expert enterprise software solutions provider. In addition to the Federal market, B&A also serves state and local government, higher education and commercial clients.

As an early adopter of SAP HANA for Enterprise Resource Planning (ERP) and Customer Relationship Management (CRM), B&A was deployed in the Public Cloud. B&A utilizes SAP HANA ERP for finance, accounting, and time keeping of resources, performing professional services on government contracts.

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B&A migrated its SAP systems to a highly secure, federally compliant "Private Cloud in the Mountain" solution, which enabled B&A to offer Infrastructure as a Service (IaaS) with FISMA high security data storage in the Iron Mountain National Data Center. Their offering serves as a single resource for critical infrastructure assessment, upgrade and migration preparation, proof-of-concept (POC), pilot programs, production and post-production support, and financing.

Challenges

As a government supplier, B&A must adhere to the strictest requirements of verifying a systematic approach to managing sensitive information securely at all times. B&A's SAP-specific environment backup was hosted in a third party data center, unrelated to any other operational systems. A separate set-up was in place for email. No backup existed for the development environment to protect the work of their R&D team. B&A's primary pain point was the complexity of maintaining compliance across the differing backup systems.

"The NEC solution really simplifies our backup complexity."

B&A's backups were labor intensive, with no single location to verify backups. The inconsistency between provider policies, multiple persons to contact for data management, and differing retention parameters also complicated the process. Their SAP backup solution was placing data in a Public Cloud, with no company access to it, or clarity regarding the location of the backed up data. Of key importance to B&A, was the ability to protect their data and know exactly where all backed up data resides in the system.

Kelly Sinclair, VP of Operations, stated, "B&A required a technology provider with a thorough understanding of our need for a simplified data recovery solution that provides extremely high reliability--and in

a secure, green environment. Until our past audit, we had gaps in our understanding, of which of the provider's data centers was storing the data, and in which Public Cloud."

The existing process forced B&A staff and subcontractors to spend valuable time managing, performing, and verifying multiple manual backups. Compliance with Federal standards required: 30-day storage of weekly backups of all Production and Quality Assurance environments along with daily incremental backups, also full weekly backups of the database (stored for 30 days), and daily incremental backups of the database (stored for 2 weeks).

Additionally, the uncertain backup provisioning meant IT staff must develop system-specific skillsets for the added workload. Since compliance requires data security and reliable disaster recovery, the added burden on support personnel increased operational costs.

Solution

Based on best practices for high security compliance, and with deep understanding of B&A's operational needs, NEC designed and implemented a UNIVERGE BLUE Backup-as-a-Service (BaaS) configuration to exceed B&A's strict requirements.

B&A runs on SAP HANA, an in-memory database with all data residing in large pools of memory. Backups of the entire Virtual Machine--which include the Operating System and SAP HANA, have to be done through a process that does not impact operations. NEC's UNIVERGE BLUE BaaS architecture was specifically designed for such performance, and is certified by SAP for HANA operations.

The new backup solution moved B&A to a Hybrid environment, which is both open and closed. The BaaS solution for B&A actually began with an increase to their storage capacity with an M-Series Hybrid Storage Array (M-310). The M-Series SAN storage is configured with NEC's Performance Optimizer technology, which automatically distributes bytes of data across SSD's (Solid State Drives) and Spinning Disks, using SAP HANA best practices for high reliability and maximum performance.

A combination of NEC's award winning HYDRAstor deployed as a target within Iron Mountain serves as a "landing pad" service, providing optimum big data storage, FISMA high security compliance, and high availability. HYDRAstor's scale-out architecture and extremely fast

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deduplication rate delivers secure data storage with optimum backup performance. Addressing B&A's strict requirements for a high-speed ingest rate, high availability, easy scalability, and highly secure data storage, HYDRAstor's uniquely seamless, non-disruptive scalability allows scaling from a single node up to 165 nodes, all in the same system, with global deduplication.

Granted full access, NEC installed the backup solution and delivered a seamlessly smooth cutover with zero impact to the B&A environment. SDN (software defined networking) delivers Virtual Tenant access from B&A's infrastructure to the NEC backup infrastructure. Since NEC's offering uses industry standard software, the system cutover was fully transparent to B&A. Now located in NEC's data centers in Iron Mountain, and managed as a service by trained and certified NEC staff, this BaaS solution makes backups painless and stress-free for B&A.

Sinclair added, "Since our data is seamlessly replicated to a secondary data center, NEC was also able to successfully run a test of our Disaster Recovery (DR) system, without any additional effort." While B&A's disaster data recovery test was specific to their SAP HANA environment, it demonstrates NEC's ability to not only deliver separate services of IaaS and/or BaaS, but to also easily extend service to a full UNIVERGE BLUE IaaS/ BaaS/ DRaaS data protection suite.

B&A's solution is complete with intelligent data migration software (which also provides security updates and tape options), NEC's state-of-the-art replication and deduping, a FISMA high security data center location--and with NEC managing all setups and system monitoring. NEC's BaaS includes Replication and HYDRAstor technology combined as a supported service, networked with SDN and secured as a part of Iron Mountain. This NEC data backup solution effectively delivers an easy one-stop, total BaaS monthly service, complete with dependable Disaster Recovery (DR).

Results

The management of cloud services can easily result in sprawling incremental costs. With NEC's certified staff expertly managing the BaaS service, those costs are curbed and B&A's IT staff can focus their time productively elsewhere.

Of key benefit to B&A is the stable billing of the environment across multiple data centers. Additional cost savings has included the valuable time savings of B&A and its support resources, no longer performing the manual backup services, or Disaster Recovery testing. This system allows B&A to not only automate the BaaS, but also delivers UNIVERGE BLUE DRaaS without any added effort by B&A or its support resources.

Said Sinclair, "Knowing that NEC is backing up our hosted solutions within the Iron Mountain Data Center--and not sending sensitive data over Public networks, really provides us with another level of assurance that the data is really secure. NEC's BaaS ensures Federal compliance and consistently reliable service levels." Hosted by NEC through Iron Mountain's high security and energy efficient (green) Pennsylvania data center, all B&A data stores are now fully protected and verified.

"The NEC solution really simplifies our backup complexity." said Sinclair. "BaaS was implemented and now managed for us by NEC, with full transparency, without any business interruption, and it requires no effort on our part."

NEC's Relationship with Our Customer

NEC has worked closely with B&A to develop a deep understanding of their business and technology pain points, and to implement solutions customized to meet the critical data recovery needs of B&A and their clients. B&A chose this solution because of NEC's vast technology infrastructure combined with a unique partner relationship with Iron Mountain Data Centers, and strong past performance with B&A.

"It was really important to us that we work with a company that could not only provide great service, but could also deliver the technology and compliance to allow B&A to meet and exceed government cloud computing standards," said Sinclair. "B&A has developed a strong relationship with NEC due to the quality and responsiveness of their customer service. We continue to expand our services with NEC because we know we are in good hands."