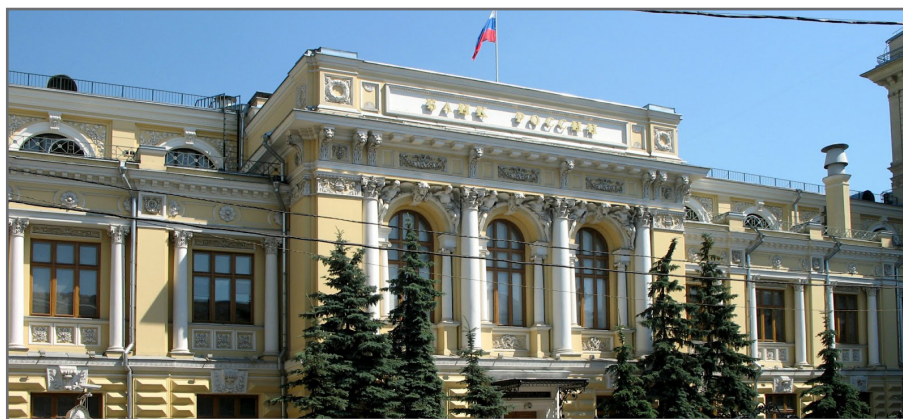


SIOS Protection Suite Ensures Business Continuity at the Central Bank of the Russian Federation

Protecting data aggregation, processing and transition inside Interregional Center for Informatization of the Central Bank of the Russian Federation

“The SIOS Protection Suite solution allowed us to considerably improve availability of the payment data gathering system and to eliminate data loss by its replication while receiving data from remote data sources.”

- A.L. Danilov, Chief Engineer,
Central Bank of Russia



The Central Bank of the Russian Federation (the Bank of Russia) payment system comprises more than 600 bank offices, 1,100 commercial banks and 2,400 side offices that provide financial services to hundreds of thousands of governmental and public organizations, and commercial companies across Russia.

The complex daily account routines at all these organizations generate more than a billion electronic filings every year. The Bank of Russia performs regulating procedures, operational management and monitoring of the entire payment system. In the Moscow region, these functions are performed by a dedicated organization called the Interregional Center for Informatization of the Central Bank of the Russian Federation (ICI BR).

The Bank of Russia needed to implement several new information and reference systems to perform its key functions, including 24x7 data aggregation, and the processing and transferring of data to a central storage vault. Absolute data integrity at every stage of the process is the key requirement.

ICI BR has built a special Information and Reference System (IRS) that works as a wide

area network (WAN) with geographically dispersed data sources that send information to the main data center. To protect this critical system, they chose SIOS Protection Suite for Linux with data replication to ensure high availability and data integrity of IRS's key components.

The Challenge

ICI BR chose FOBOS PLUS Co., Ltd., an experienced system integrator that specializes in building highly available data centers with an emphasis on data integrity and security features to develop the Bank of Russia payment system's IRS.

After conducting a thorough and comprehensive analysis of the IC BR needs and requirements, FOBOS PLUS engineers set out to create a system that would combine the required functionality at a moderate price. Cost factors guided the company's choice to use industry standard platforms and open source operating systems.

To achieve high availability, they implemented key components of the Bank of Russia's IRS as fault tolerant cluster solutions. FOBOS PLUS engineers needed a solution that met a broad range of requirements.

They needed a cluster solution that would ensure high availability for both Oracle databases and custom applications and enable data replication over local area networks to eliminate shared storage use.

The Solution

They chose HP ProLiant DL380 industrial standard servers and Red Hat Enterprise Linux AS 5 operating system to create two clustered data preprocessing servers. After detailed analysis of various cluster solutions' features and specifications, they chose SIOS Protection Suite for Linux with data replication. SIOS Protection Suite would provide safe and seamless failover in the event of primary system faults and the ability to maintain continuous data replication between cluster nodes.

The cluster was initially configured in a test environment to assure its effectiveness and to fine-tune the custom applications that should work in high availability mode. After the full testing cycle was completed, they needed less than a week to deploy the cluster at the ICI BR data center. They built twin two-node clusters, one located at a primary data center and the other at a backup center. Both clusters maintain continuous data replication between cluster nodes.

The key reasons for choosing SIOS Protection Suite as a cluster solution included the platform's affordable price, open source operating system and support for Oracle DBMS support and custom applications. The SIOS Protection Suite cluster virtually eliminates data loss due to hardware or software faults and provides high availability for applications and processed data.

Benefits

SIOS Protection Suite and its high availability cluster core achieved all project objectives quickly and with minimal expense. The solution's scalability also allows the system to convert into geographically-dispersed clusters with primary and backup data centers operating as nodes, allowing them to add disaster recovery at virtually no additional cost. The SIOS clusters will easily withstand not just one server loss but an entire primary site loss. In the worst-case scenario, SIOS Protection Suite will seamlessly restart all applications on the backup site machines and provide continuous data replication to ensure little to no data loss, and enabling the entire system to continue operating normally.

After finishing test and deployment procedures, both FOBOS PLUS and ICI's engineers praised SIOS Protection Suite's intuitive graphical user interface that allows them to easily configure and monitor the cluster status. It provides comprehensive information on node and application status on a single screen and extends high availability by making potential problems immediately identifiable to users.

ICI BR's Chief Engineer A.L. Danilov said: "The SIOS Protection Suite solution deployed by FOBOS PLUS allowed us to considerably improve availability of the payment data gathering system and to eliminate data loss by its replication while receiving data from remote data sources. Before SIOS Protection Suite, we suffered considerable risk of irrevocable payment data loss from potential faults of pre-processing servers. This was due to continuous data flow and a source's inability to resend processed information."

The staff at Aflex Software Company, the official business representative of SIOS and Nordicmind in Russia, provided highly skilled consultations to FOBOS PLUS engineers. Vitaly Shpak of Aflex said: "IT professionals at banks and financial agencies are very well aware of the importance and the complexity of high availability systems. The fact that one more bank is deploying SIOS Protection Suite is not all that remarkable, given the strength, ease-of-use and cost-effectiveness of the solution. But Interregional Center for Informatization of the Central Bank of the Russian Federation is not your average bank. It is one of the state's biggest financial IT departments. And implementing the solution with such a customer clearly proves SIOS Protection Suite's ability to be successful at the highest level of the corporate market."

About SIOS

SIOS delivers innovative software solutions that provide application availability and disaster protection for Windows and Linux environments.

Clusters Your Way.™

An essential ingredient in any cluster solution, SIOS SAN and SANless clustering software provides the flexibility to build clusters your way to protect your choice of Windows or Linux environment – and any configuration (or combination) of physical, virtual and cloud (public, private, and hybrid) storage – without sacrificing performance or availability. SIOS provides unique #SANLess clustering software that eliminates both the cost and the single-point-of-failure risk of traditional SAN-based cluster solutions.

Founded in 1999, SIOS Technology Corp., is headquartered in San Mateo, California, and has offices throughout the United States, United Kingdom, and Japan.



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FOBOS PLUS Co., Ltd - established in 1996 - is a Russian system integrator specialized in comprehensive and demanding corporate level IT solutions. The company also designs and deploys data centers with enhanced high availability, data security and geographically dispersed disaster recovery.

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Aflex Software is an official representative of SteelEye and Nordicmind in Russia. Aflex Software provides highly skilled assessment, deployment and technical support services for SteelEye solutions.

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Nordicmind Ltd is SteelEye.s authorized Competence and Support Center for Northern Europe and CIS.

