





Professional Services

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Professional Services from HA Experts

Save time, simplify complexity, ensure reliable HA/DR for essential applications

Implementing high availability and disaster recovery (HA/DR) for essential applications and databases in today's complex IT landscapes can be challenging. Whether your project is in a Windows and/or Linux environment, on premises, in the cloud, or in a hybrid cloud, SIOS professional services team have the in-depth expertise and project management experience to ensure you get the most value from your HA/DR project.

ENSURE PROTECTION

Benefit from the latest in highly automated HA/DR solutions without vendor lock-in or added complexity. Leverage our expertise to implement recommended configurations for a broad range of critical applications, databases and ERPs.

- **HA/DR consulting:** we use the latest architecture standards, guidelines and site templates to recommend HA/DR configuration that meet your business and technical objectives while reducing cost and saving IT time.
- Health check and validation services deliver the reassurance that you will meet your HA/DR SLAs and recovery objectives for your critical applications.

SIMPLIFY INSTALLATION

SIOS provides resources to simplify installations regardless of technical complexity, IT team location, or project complexity.

- **Efficient installation:** Drawing on decades of experience in support large, complex projects, SIOS HA/DR experts know how to work within your larger migration, deployment or upgrade project to meet your deadlines and business requirements.
- **Flexible options:** Whether you need white glove, end-to-end installation, configuration, testing, and training services, or guidance and validation of projects your in-house team executes, SIOS offers a broad range of installation options

OPTIMIZE VALUE

Get more value out of IT investments by evaluating current infrastructure, optimizing configurations, and leveraging advanced features. SIOS delivers the reassurance that you will meet your HA/DR SLAs and recovery objectives for your critical applications.

- Health check and configuration audit: a proactive assessment of your infrastructure and the environment where we identify vulnerabilities, optimization opportunities and recommendations for improvement.
- **Training:** Maximize your return on your HA/DR investment by ensuring your IT teams are fully trained in best practices for configuration and ongoing administration of your clustering environment.



Installation and Upgrade Services

SIOS provides installation services performed by HA experts to simplify HA cluster deployment, ensure reliable failover, and address customers' most important challenges. IT teams that take advantage of SIOS installation services save time, and gain assurance that their essential systems are installed and configured for optimal performance, reliability, and availability. All SIOS installation projects begin with a detailed assessment of both the existing environment and the customer requirements and conclude with a customer review of the installed system configurations and best practices. A detailed statement of work is available for all SIOS professional services.

SIOS LifeKeeper Installation Services

SIOS experts ensure installation and configuration of a two node cluster with a witness node are optimized for both SIOS LifeKeeper and the protected application. SIOS installation services are provided via remote access and fully documented for easy ongoing administration.

- Detailed preliminary assessment and review of detailed priorities and expectation for the SIOS Product configuration
- Complete installation from SIOS software download to configuration and testing of two-node cluster with witness node
- Detailed report of the installation configuration
- Review of SIOS LifeKeeper installation and configuration (logs, settings, best practices) with customer
- Email-based QA session

Service Code: PS-INS-LK

SIOS DataKeeper **Cluster Edition Installation Services**

SIOS DataKeeper installation experts ensure installation and configuration are optimized for both SIOS DataKeeper and the protected application. SIOS installation services are provided via remote access and fully documented for easy ongoing administration. Services include:

- Pre-Installation check (includes project assessment, internal reviews)
- Complete installation from SIOS software download to configuration and testing of two-node cluster with witness node
- SIOS Cluster Setup and Existing Cluster Validation
- Review SIOS Product installation and configuration (logs, settings, best practices) with customer
- Email-based QA session

Service Code: PS-INS-DK

SIOS LifeKeeper **Upgrade Services**

SIOS experts will upgrade your systems to the latest version of SIOS LifeKeeper for -Linux or Windows software. Services include one two node cluster plus quorum and, if applicable, third and/or fourth HANA Multitarget nodes. SIOS upgrade services are provided via remote access and fully documented for easy ongoing administration.

- Detailed preliminary assessment and review of detailed priorities and expectation for the SIOS Product configuration
- Complete installation from SIOS software download to configuration and testing of two-node cluster with witness node
- Detailed report of the installation configuration
- Review of SIOS LifeKeeper installation and configuration (logs, settings, best practices) with customer
- Email-based QA session

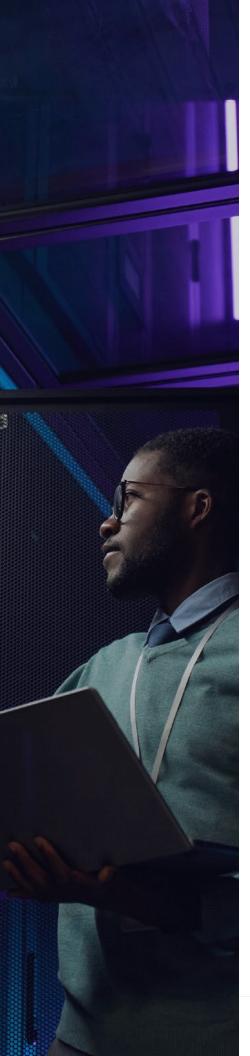
Service Code: PS-UPG-LK

SIOS DataKeeper Upgrade Services

SIOS experts will upgrade your systems to the latest version of SIOS DataKeeper software. Upgrade services include any version of DataKeeper Cluster Edition Cluster on Windows in a two node cluster plus quorum. SIOS upgrade services are provided via remote access and fully documented for easy ongoing administration.

- Detailed preliminary assessment and review of detailed priorities and expectation for the SIOS Product configuration
- Complete installation from SIOS software download to configuration and testing of two-node cluster with witness node
- Detailed report of the installation configuration
- Review of SIOS DataKeeper installation and configuration (logs, settings, best practices) with customer
- Email-based QA session

Service Code: PS-UPG-DK





SIOS Product Training

SIOS high availability and disaster recovery experts deliver training sessions designed to provide administration teams with a deeper understanding of the efficient use of SIOS products. Through a combination of lectures, Q&A sessions, and hands-on labs, SIOS instructors will review key concepts, provide practical experience-based content and challenge understanding. Training topics include, but may not be limited to, general and basic HA/DR concepts, customer-specific considerations, troubleshooting, and advanced configuration. All training is delivered via a remote learning platform and available in pre-scheduled bimonthly courses with open registration or in private sessions with curriculum customized for individual organizations.

Prescheduled SIOS LifeKeeper for Linux Administrator Training

The SIOS LifeKeeper for Linux Administrator course is designed to equip participants with the skills and knowledge required to implement, configure, and manage SIOS LifeKeeper high availability (HA) solutions. This course is ideal for system administrators, network engineers, and other IT professionals looking to enhance their skills and expand their knowledge of protecting their essential Windows applications with SIOS LifeKeeper for Linux.

This course covers the key concepts, and methodologies, needed to ensure that critical Linux applications, ERPs, and databases are always available, even in the face of hardware or software failures.

- Fundamentals of HA clustering (on premises and in the cloud), load balancing and redundant storage systems.
- LifeKeeper resource hierarchy creation and best practices
- Preliminary testing and troubleshooting

Courses are open to registration by multiple organizations. An optional, individualized 90-minute breakout/consulting session is also available for each participant organization.

Course prerequisites include a basic understanding of computer networking and Linux operating systems, as well a working knowledge of basic IT administration.

Class sizes are limited to 12 participants (max 6 students per organization and includes one Individualized Consulting Session per organization.)
Course fees include training materials and self-guided exercises.

Section 1: Training and content delivery

Monday – Wednesday – 4 hours/day

Section 2: Individualized Consulting sessions Breakout and Q&A sessions (Thursday or Friday)

SERVICE CODE: PS-TRN-Admin-Linux per student

SERVICE CODE: PS-TRN-Q-Linux Additional Section 2 participants

Prescheduled SIOS DataKeeper Administrator **Product Training**

DataKeeper Full (2 day) Administrator Training

The SIOS DataKeeper Administrator course is designed to equip participants with the skills and knowledge required to implement, configure, and manage SIOS DataKeeper Cluster Edition high availability (HA) solutions. This course covers the key HA and disaster recovery (DR) concepts, methodologies, and skills necessary to ensure that critical Windows applications are always available, even in the face of hardware or software failures.

Participants will also learn how to configure DataKeeper with Windows Server Failover Clustering (WSFC) as well as how to test and troubleshoot these systems to ensure maximum uptime. Upon completion, participants will have the practical skills and knowledge necessary to manage and maintain highly available systems to meet a variety of common requirements and use cases.

Courses are open to registration by multiple organizations. Participants will also receive training materials and self-guided exercises. An optional, individualized 90-minute breakout/consulting session is also available for each participant organization.

Course prerequisites include a basic understanding of computer networking and Windows operating systems, as well a working knowledge of basic IT administration.

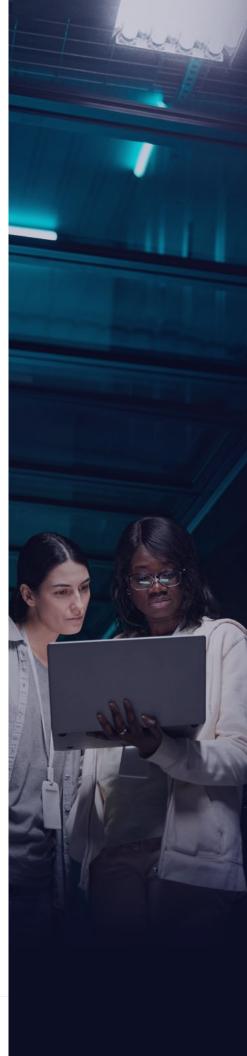
Class sizes are limited to 12 participants (max 6 students per organization and includes one Individualized Consulting Session per organization.)

Section 1: Training and content delivery Monday - Tuesday - 4 hours/day

Section 2: Individualized Consulting sessions Breakout and Q&A sessions (Wednesday or Thursday)

SERVICE CODE: PS-TRN-Admin-Windows

SERVICE CODE: PS-TRN-Q-Windows



Customer Private LifeKeeper Administrator Product Training

The SIOS LifeKeeper for Linux Administrator course is designed to equip participants with the skills and knowledge required to implement, configure, and manage SIOS LifeKeeper high availability (HA) solutions. This private course covers the key concepts, and methodologies, needed to ensure that critical Linux applications, ERPs, and databases are always available, even in the face of hardware or software failures.

This course provides overviews of key concepts of HA and disaster recovery (DR), giving participants the vocabulary and knowledge needed to implement an effective application-level high availability environment. Key HA concepts include:

- Fundamentals of HA clustering (on premises and in the cloud), load balancing and redundant storage systems.
- · LifeKeeper resource hierarchy creation and best practices
- Preliminary testing and troubleshooting

Upon completion, participants will have the practical skills and knowledge necessary to manage and maintain SIOS LifeKeeper for Linux to meet a variety of common requirements and use cases.

Participants also receive training materials and self-guided exercises.

Course prerequisites include a basic understanding of computer networking and operating systems, as well a working knowledge of basic IT administration. This course is ideal for system administrators, network engineers, and other IT professionals looking to enhance their skills and expand their knowledge of protecting their essential Linux applications.

Maximum 9 students per class.

SERVICE CODE: PS-TRN-LK

Custom Private SIOS DataKeeper Full Administrator Product Training

The SIOS DataKeeper Administrator course is designed to equip participants with the skills and knowledge required to implement, configure, and manage SIOS DataKeeper Cluster Edition high availability (HA) solutions. This course covers the key HA and disaster recovery (DR) concepts, methodologies, and skills necessary to ensure that critical Windows applications are always available, even in the face of hardware or software failures.

Key HA and DR concepts include fundamentals of HA clustering (on premises and in the cloud), load balancing and redundant storage systems. Participants will also learn how to configure DataKeeper with Windows Server Failover Clustering (WSFC) as well as how to test and troubleshoot these systems to ensure maximum uptime. Upon completion, participants will have the practical skills and knowledge necessary to manage and maintain highly available systems to meet a variety of common requirements and use cases.

Participants will also receive training materials and self-guided exercises. An optional, individualized 90-minute breakout/consulting session is also available for each participant organization.

Course prerequisites include a basic understanding of computer networking and operating systems, as well a working knowledge of basic IT administration. This course is ideal for database and system administrators, network engineers, and other IT professionals looking to enhance their skills and expand their knowledge of protecting their essential Windows applications with SIOS DataKeeper Cluster Edition.

Maximum 9 students per class.

SERVICE CODE: PS-TRN-DK



High Availability Validation (HA Health) Check Services

A SIOS high availability validation check (HA health check) provides a comprehensive ensures SIOS HA best practices are implemented to protect critical applications from downtime and disasters. SIOS experts conduct an in-depth analysis and validation of the complete SIOS HA environment and provide detailed documentation, HA consulting and recommendations for optimization.

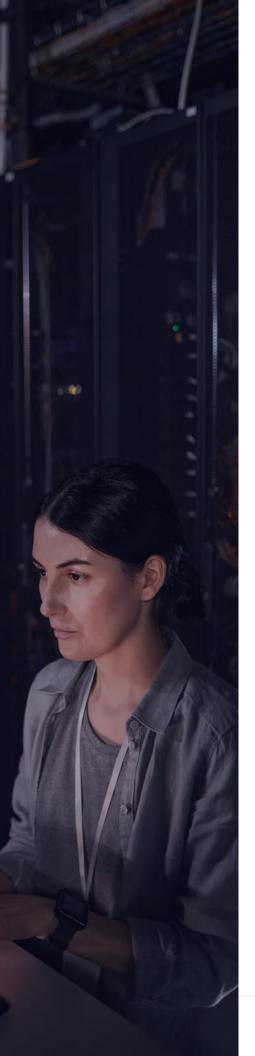
High Availability Validation Check for SIOS LifeKeeper (Windows or Linux)

SIOS experts will conduct a detailed review and validation of the entire LifeKeeper environment in a two-node cluster and quorum (or equivalent with SAP HANA). They will work through an HA checklist of more than 70 points by reviewing system logs, system settings, run books and other documentation to ensure the LifeKeeper environment, including application recovery kits are configured and operating in an environment that is optimized for application-specific HA. They will validate their findings in a detailed report and, if necessary, provide recommendations for correcting and/or improving operation.

- Analysis of SIOS product logs (where applicable) to provide suggestions and recommendations for additional activities
- Review and recommendations for inclusion in customer run books and future planned activities
- Detailed documentation of project actions and optimized SIOS product configuration including:
 - Actions taken during active and standby periods
 - Open actions requiring additional follow up
 - Risks and risk resolutions

SERVICE CODE: PS-HCK-LK





Mini-Health Check for SIOS LifeKeeper (Windows or Linux)

The SIOS Mini-health check for LifeKeeper is designed for organizations who plan to install a two-node cluster using SIOS LifeKeeper but want assurance that their SIOS HA environment conforms to best practices.

Prerequisite: customer must have performed a SIOS-guided installation during a pre-production proof-of-concept or QA phase and tuned settings after SIOS initial engagement or installation.

SERVICE CODE: PS-VAL-LK

High Availability Validation Check for DataKeeper Cluster Edition (Windows)

SIOS experts will conduct a detailed review and validation of the entire SIOS DataKeeper Cluster Edition environment in a two-node cluster and quorum node or witness node. Working remotely, they will work through an HA checklist of more than 70 points by reviewing system logs, system settings, run books and other documentation to ensure the DataKeeper environment, including application recovery kits are configured and operating in a Window Server Failover Clustering environment that is optimized for application-specific HA. They will validate their findings in a detailed report and, if necessary, provide recommendations for correcting and/or improving operation.

- Analysis of SIOS product logs (where applicable) to provide suggestions and recommendations for additional activities
- Review and recommendations for inclusion in customer run books and future planned activities
- Detailed documentation of project actions and optimized SIOS product configuration including:
 - Actions taken during active and standby periods
 - Open actions requiring additional follow up
 - Risks and risk resolutions

SERVICE CODE: PS-HCK-DK

Mini-Health Check for SIOS DataKeeper Cluster Edition

The SIOS Mini-health check for DataKeeper is designed for organizations who plan to install a two-node cluster using SIOS DataKeeper but want assurance that their SIOS HA environment conforms to best practices.

Prerequisite: customer must have performed a SIOS-guided installation during a pre-production proof-of-concept or QA phase and tuned settings after SIOS initial engagement or installation.

SERVICE CODE: PS-VAL-DK





Standby Engineering Services

Business users and customers expect IT to minimize downtime during planned upgrades and maintenance on critical systems. SIOS Standby Engineer Service puts SIOS professional services experts on standby, ready to act quickly during critical phases of critical projects, including upgrades, maintenance, go-live cutover, expansion, troubleshooting or system retirement. SIOS Standby Services engagements help guarantee a successful project by providing access to project and product engineer with extensive HA/DR expertise and skilled analysis to support your team.

SIOS Standby Engineer Service

SIOS standby engineering service provides fixed duration access to HA experts to support Go-Live/Maintenance plans with OS, storage, hypervisor, and application HA/DR related questions and issues, and assistance for any rollback and mitigation of the HA/DR environment involving SIOS HA products and services. During the designated installation or maintenance project, a SIOS engineer will be on standby (available to respond to customer issues related to the project during identified activities with an enhanced one (1) hour or less SLA.

Prerequisites: Customers should have completed PoC and/or QA testing, sent SIOS the resulting run books two weeks in advance and applied SIOS recommendations from any health checks or validation checks prior to scheduled go-live activities.

- Eight (8) hours of actively participation by SIOS Services Engineer(s) in project activities
- Twelve (12) hours of SIOS Services Engineer(s) to be available with one-hour response time

SERVICE CODE: PS-ENG-STBY



Custom Application Recovery Kit Development

Application Recovery Kits (ARKs) for SIOS LifeKeeper for Linux provide application-specific protection for a broadest range of Linux workloads including both commercially available and bespoke applications, databases, and ERPs. SIOS custom ARK Development service will create a custom application recovery kit that adds application-aware intelligence to SIOS LifeKeeper for fast, reliable failover in compliance with application-specific error-free best practices. The resulting ARK will enable SIOS LifeKeeper to start, stop monitoring, and recover operations for a client application as specified in the customer's requirements. SIOS will provide software professional services to develop and deliver a custom application recovery kit packaged for proper installation, configuration and administration with the SIOS LifeKeeper and SIOS DataKeeper. The SIOS Custom ARK Service includes:

- Detailed documentation of procedures for installation, configuration, maintenance, and upgrades
- Documentation of design & architecture of the custom ARK
- · Easy-to-install packaging
- Expert installation assistance
 - Validation and verification of the custom ARK, including custom test plan to be reviewed and sign off by customer
 - · Assistance with basic trial/proof-of-concept testing and troubleshooting
- Review of test result and sign off
- Thirty (30) day configuration warranty; Ninety (90) day defect correction warranty

Optional: Maintenance plan for ongoing version support and maintenance.

SERVICE CODE: PS-App-Dev

Critical break/fix support for custom application development

Ensure IT teams have access to technical support for custom applications developed through the Custom ARK Development Service for one year.

SERVICE CODE: PS-App-Support



Customized Professional Services

SIOS offers a variety of customized professional services to meet the needs of customers that go beyond the scope of our packaged services.

The SIOS White Glove Support Service

The White Glove Service for SIOS products is a premium installation and service offering that provides assistance to customers from initial proof-of-concept (PoC) testing through the Go-Live phase with installation, testing, documentation, and health checks of the SIOS solution. Providing customers with the highest levels of assurance that SIOS software is properly installed, configured, tuned, tested, and ready to meet the customer and business needs.

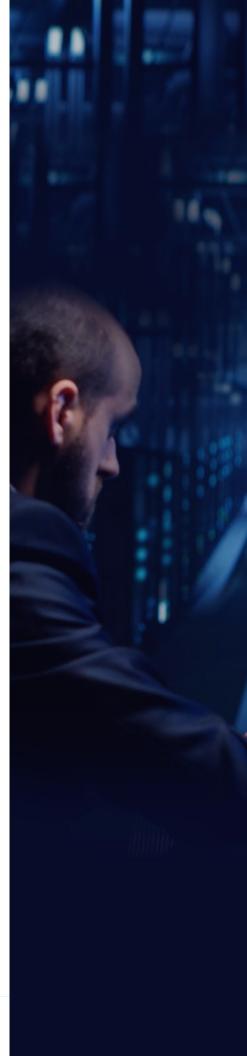
Many of today's IT teams have tight deadlines, and aggressive schedules and cannot afford the risk of a misconfiguration, or a latent error appearing later. In order to mitigate schedule pressures and configuration risks, they require experienced technologists with specialized expertise in both the operation of business critical applications and HA/DR solutions.

The SIOS White Glove service provides expert SIOS installation, configuration, and customer support services for UAT setup through Production cutover (such as go-live activities). Customers deploying with minimal SIOS or OS specific knowledge can be confident their HA configuration will be professionally completed. Customers with previous experience can tap into engineering resources for consulting and review of run books, go-live activities, and test results.

The outcome of the SIOS White Glove Support is a stable SIOS HA cluster (including quorum/witness), reduced risk of downtime due to implementation failures, increased confidence that the HA solution is probably configured and aligned with SIOS best practices, and reduced cost due to lost time.

White Glove Support includes:

- Assigned executive sponsor
- Review of existing infrastructure to understand the environment and requirements.
- Project planning including a Work Breakdown Structure (WBS)
- Support for automated deployments and supported installation customization
- Installation of SIOS High Availability (HA) software on the cluster nodes in a non-production environment (2 Nodes + Quorum/Witness).
- Retrieval of SIOS software (latest release available)





- Assistance with permanent license retrieval and installation
- Free trial keys for extended PoCs
- Up to 2 one-hour sessions for Q&A of go-live project plans based on PoC/UAT or Trial phases

Validation and Verification including:

- Health Check Assessment
- Assistance with basic Trial/PoC Testing and troubleshooting
- Test result review and sign off on Trial/PoC test results
- Review of production go-live procedures
- Assistance with go-live WBS
- Review of installation procedures for go-live preparedness
- Additional support (up to eight pre-scheduled hours)

Go-Live support

- Managed check-ins the week after go-live
- Review of final run book
- One additional run book review for the first planned upgrade, DR Test, or planned maintenance activity



Feel free to contact us for more information about SIOS professional services.

Email: info@us.sios.com | Tel: +1.650.645.7000

us.sios.com