

Technical Details **syslink Xandria**[®] 4.5

1. General Functions and Application Design

- syslink Xandria is consistently designed from a service provider perspective providing transparent web access to customers.
- It consists of a central management server and distributed management agents which can be automatically updated.
- Easy to install and thoroughly pre-configured using best practices: Start your system management in an instant!
- There is only one agent per physical server managing all applications hosted by the server.
- Management agents automatically detect SAP[®] instances, virtual cluster servers, and cluster switches.
- Strictly external and independent monitoring perspective: The agents are not located within the monitored application and hence are entirely operational even if the application is not.
- 100% web-based User interface with direct access to customer based views. No deployment. Easy to use.
- A bottom-up monitoring approach provides an intrinsic root cause analysis.
- The syslink Xandria server is available for Microsoft Windows, Linux, and IBM AIX.
- The syslink Xandria Agents are available for Microsoft Windows, Linux, IBM AIX, HP-UX, Tru64, Sun Solaris.
- Supports all SAP Basis releases from 3.11 to 7.10.
- Supports Oracle, IBM DB2, Max DB/SAPDB, Microsoft SQL Server, and Informix databases. (Informix databases only supported as part of an SAP System.)
- Encrypted communication between management agents and management server.
- Optional gateway components available providing HTTP-tunneling in order to connect remote agents over the Internet.
- The licensing scheme is based on the number of managed objects.

2. System Monitoring

System Monitoring is performed by means of *checks*. There are many built-in checks, but monitoring can also be extended by means of so called *custom checks*.

2.1 Monitoring Areas

There are two monitoring areas: RealTime Monitoring and Daily Checks:

2.1.1 RealTime Monitoring

- Provides a comprehensive overview of the current system health states.
- Provides a history view of every single check state.
- Allows confirmation of the current check state.
- Uses trend analysis and forecasting to detect critical trends instead of single events.
- Provides direct UI access to different views (e.g. confirmed checks, unconfirmed checks, all).

2.1.2 Daily Checks (SAP Systems only)

- Verify health states required to be checked only once per day (e.g. backup).
- Comprise a summary of the RealTime Monitoring results of the previous day.
- Contribute to an automated system documentation.
- Provide a full history of system states.
- Allow confirmation in order to document fulfillment.

2.2 Built-In Checks

- Verify the availability of the server and the usage rates of file systems, CPUs, and virtual memory.
- Verify the availability of ABAP, Java, SCS, and ASCS instances.
- Verify the availability and usage of Java Application Servers and Internet Communication Managers.
- Dedicated checks for SAP Business Intelligence (BW/BI) and SAP Process Integration (PI/XI) systems.
- Checks for Idocs, QRFC, TRFC, jobs, locks, spool, short dumps, workload and dialog performance, updater, etc.
- Database specific checks for tablespace usage, backup execution and consistency, transaction log usage, log files, etc.

2.3 Monitoring Expansion and Integration

Custom Checks can be applied to any type of managed object (i.e. Servers, SAP Instances, SAP systems, and databases). The following options are provided:

- Customizable checks for OS processes and services, log files, web servers, network resources, SAP Jobs, RFC Destinations, SAP transaction runtimes, SAP system log.
- SAP CCMS configuration and integration (incl. alerts)
- Plug-in mechanism to integrate and deploy your own monitoring scripts.

Custom Checks can be applied to single systems, a group of systems, or role-based (e.g. for all Oracle databases, or all Unix servers, or all SAP Systems of a given customer).

2.4 Monitoring Configuration

- Configuration of checks is performed through monitoring parameters and monitoring parameter sets.
- Monitoring parameters can be defined per managed system.
- Multiple monitoring parameters can be combined to a monitoring parameter set in order to reflect a monitoring policy.
- Multiple cascading Monitoring parameter sets can be defined for single systems, a group of systems, or role-based (e.g. all productive systems) allowing to enforce monitoring policies across system landscapes.
- Usage parameters can be defined in percent or in absolute figures (i.e. remaining free space).
- Monitoring breaks can be defined ad-hoc or planned as maintenance windows with comprehensive support for recurrent schedules.
- Maintenance windows can be applied to single systems, a group of systems, or in a role-based way.

2.5 Notification Management

- Extremely flexible yet easy to use notification management based on check states in RealTime Monitoring and Daily Checks.
- Re-sending of notifications allows to implement escalation schemes.
- Powerful filter rules can be applied using simple or advanced filter syntax (including a logical expression editor).
- Supports auto-confirmation of RealTime Monitoring and Daily Checks.
- Multiple output channels available: SMTP Email (used for mail and text message notifications), log file, run an external command (integration with third-party systems), XML files.
- Custom resolvers allow to integrate your third-party data into the notification scenario.
- Advanced options allow to test the notification process before usage.

3. Service Level Reporting

3.1 Service Level Agreements

- Service Level Agreements contain Service Hours and a target availability rate.

- If an SLA is applied to a system, the system's availability rate is only considered during the defined Service Hours and is automatically compared to the target availability rate.

3.2 System Availability

- Availability data is collected and recorded locally (by the management agent) in order to avoid the impact of network interruptions.
- Availability records within a maintenance windows are flagged accordingly; downtimes within a maintenance window are considered as »Planned downtime«.
- There is the option to correct availability data subsequently, e.g. change »Unplanned downtime« to »Planned downtime«.

3.3 Performance Data

Performance data can be displayed on an hourly, daily, and monthly base for the following performance resources (within the UI and the Service Level Reports):

3.3.1 Servers

- CPU and Disk usage

3.3.2 SAP Systems

- Database size/used space
- Average dialog response time and number of dialog steps (per system/instance)
- Average dialog response time of predefined named transactions (per system/instance)
- Top N transactions response times and number of steps (per system/instance)
- Concurrent number of users (per instance)
- J2EE action response times (per instance)

3.3.3 Databases (stand-alone)

- Database size/used space
- MaxDB (SAP DB): Number of sessions, data and catalog cache hit ratio
- Oracle: Tablespace size/used space, number of logons, data buffer and DD cache hit ratio, user/recursive calls ratio, sorts in memory, short table scans
- IBM DB2: Number of connections, buffer pool hit ratio, sort overflows, LSN gap cleaner triggers, time DB waited on locks, lock waits, deadlocks, lock escalations
- Microsoft SQL Server: Number of logons, buffer cache hit ratio, lock wait time, number of deadlocks

The raw performance data can be exported using the UI.

3.4 Service Level Reports

SLR Generation can be scheduled or performed on demand from the UI:

- SLR Content can be easily configured.
- Overview of system availability data and detailed reporting of availability including graphical display .
- All performance resources are available for reporting.
- Remark sections can be included (e.g. to provide a management summary).
- PDF output and XML data files are available.
- Can be stored in the Xandria DB to be available for download using the web user interface (e.g. for customers).
- Visual design of the PDF reports is customizable in order to reflect visual identities.

4. Service Operation

4.1 Change Management

Automated recording of the most important system changes:

- SAP client settings, system change option, component and SPAM version/patch level, kernel version/patch level, profile parameters
- J2EE system and VM properties and software components
- Database version and parameters
- Oracle: Changes performed using the »SAPDBA« or »BrSpace« tools
- Cluster switches

Integrated Change Management application based on ITIL processes.

4.2 Problem and Request Management

Integrated Problem and Request Management application based on ITIL processes.

4.3 SAP ABAP Transport Management

- Supports transport request workflows with additional authorization roles.
- Multiple transport requests can be combined to a single task.

- Transport tasks can be scheduled. You may define any starting time for transport task processing.
- Transport requests managed with syslink Xandria tasks can be imported into multiple clients in a single step.

5. Configuration Management

- SAP instance and database profiles/parameters are automatically collected and stored with the central management server.
- Change records are created if profiles or parameters change.
- »Compare profiles« option allows to compare multiple profiles/parameters across system boundaries.

6. User Management

- Easy to use yet powerful user design.
- Fine grained role based access control scheme; hides UI elements a user has no permissions for.
- Groups, roles, and permission inheritance support even complex access control scenarios.
- Users are not considered in the licensing scheme (you can create as many users you need).

7. Inventory Data Management

Inventory data is automatically collected and stored with the management server.

Server Inventory

- Operating system information
- Physical Memory
- File systems name, size, and used space

SAP Inventory

- Kernel versions ABAP & Java
- Component versions ABAP & Java
- Clients, Licenses

Database Inventory

- Database Version information