



We live System Management.

Technical Details syslink Xandria® 5.0

1. General Functions and Application Design

- syslink Xandria is consistently designed from a service provider perspective providing transparent web access to the carrier's customers.
- It consists of a central management server and distributed agents which can be updated automatically.
- Easy to install and thoroughly pre-configured using best practices: start your system management in an instant!
- Only one agent per physical server manages all installed applications and virtual cluster servers.
- Auto-discovery of SAP® instances and virtual cluster servers by the management agents; cluster switch auto-detection.
- Strictly independent monitoring perspective: syslink Xandria delivers its own standard-based monitoring interface; no CCMS configuration required.
- 100% web-based User Interface with direct access to customer based views providing user profiles and saved searches. No deployment. Easy to use.
- Mobile User Interface XanMobile provided exclusively for the iPhone®.
- A bottom-up monitoring approach provides an intrinsic root cause analysis. In addition event correlation is available on a per-system level and across systems.
- 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, Sun Solaris.
- Supports all SAP Basis releases from 3.11 to 7.2.
- Supports Oracle, IBM DB2, Max DB/SAP DB, and Microsoft SQL Server databases.
- Encrypted communication between management agents and management server using HTTPS.
- Optional gateway available providing tunneling and backup routing in order to connect agents in a complex network environment.
- The licensing scheme is based on the number of managed objects only, no user-based licensing.

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*.

Another option is to correlate check results using *Composite Checks* (on per-system level) or *Business Services* (across system boundaries), the latter of which allows to create high-lever views of the services typically provided by an (internal or external) SAP Service Provider.

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.
- Supports End-to-End Application Monitoring for SAP Systems (ABAP/Java) and Web Servers.
- Provides a history view of every single check status.
- Allows confirmation of the current check status.
- 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 and Databases)

- 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 switch-over solutions, and the usage rates of file systems, CPUs, and virtual memory.
- Verify the availability of ABAP, Java, (A)SCS 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, as well as various Java resources.
- Checks for work processes, IDocs, QRFC, TRFC, jobs, locks, spool, short dumps, workload and dialog performance, updater, batch input, etc.
- Database specific checks for tablespace usage, backup execution and consistency, transaction log usage, log files, etc.

2.3 Monitoring Expansion and Integration

2.3.1 Custom Checks

Custom Checks can be applied to any type of managed object. The following options are provided:



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- 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 Solution Manager integration (incl. alerts).
- Plug-in mechanism to integrate and deploy your own monitoring scripts.
- Recording of Service Availability for many custom check types.

Custom Checks can be applied to single systems, a group of systems, or role-based (e.g. for all Oracle databases, or all SAP Systems of a given customer), being effective for existing and newly defined ones.

2.3.2 Composite Checks

Composite Checks allow you to create a new check based on the result of existing built-in checks, a Custom Checks, or even other Composite Checks. There are several functions available to combine the input checks, or to defer the evaluation.

Composite Checks can be applied to single systems, a group of systems, or role-based (e.g. for all Oracle databases, or all SAP Systems of a given customer), being effective for existing and newly defined ones.

2.3.3 Business Services

Business Services are similar to Composite Checks, but they are not limited to a single system. Instead checks executed on different systems even of different customers can be combined.

2.4 Monitoring Configuration

- Configuration of checks is performed through monitoring parameters and monitoring parameter sets.
- Multiple monitoring parameters can be combined to a set in order to reflect a monitoring policy.
- Multiple cascading monitoring parameter sets can be defined for a single systems, a group of systems, or role-based (e.g. all productive systems) allowing to enforce monitoring policies across system landscapes.
- Monitoring parameters may be defined per managed system, too.
- 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.
- Checks can be disabled for a single systems, a group of systems, or role-based (e.g. all test systems).

2.5 Notification Management

- Extremely flexible yet easy to use notification management based on check status 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 (incl. a logical expression editor).
- Supports auto-confirmation of RealTime Monitoring and Daily Checks.
- Multiple channels available: SMTP Mail (for mail and text message notifications), log file, external commands (integrate third-party systems), XML files, Problem Tickets.
- Custom resolvers allow to integrate your third-party data into the notification scenario.

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 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 Service Availability

- Similar to System Availability, data is recorded and reported also for End-to-End monitoring targets and for selected Custom Check types, Composite Checks, and Business Services.

3.4 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):

3.4.1 Servers

- CPU, Disk, and Virtual Memory usage

3.4.2 SAP Systems

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

3.4.3 Databases (stand-alone and SAP database instances)

- 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.

3.5 Service Level Reports

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

- SLR Content can be easily configured using template-based generation.
- 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 Reports are available for download using the web interface (e.g. for customers).
- Visual design of the PDF reports is customizable in order to reflect visual identities.

4. Service Operation

4.1 Solution Management

- Provide your dedicated operating procedures or problem resolutions.
- Solution Documents can be created using built-in editors; existing external documents can be attached or referenced by URLs.
- syslink Xandria automatically suggests the closest solution based on e.g. problem class, check type, system, or customer data.

4.2 Change/Problem/Request Management

Automated recording of important system changes:

- SAP client settings, system change option, component and SPAM version/patch level, kernel version/patch level, profile parameters
- J2EE system/VM properties and software components
- Database version and parameters
- Changes performed using »SAPDBA« or »BrSpace« tools (Oracle)
- Cluster switches
- Integrated Change, Problem, and Request Management application based on ITIL processes.

4.3 SAP ABAP Transport Management

- Supports transport request workflows with additional authorization roles.
- Multiple requests can be combined into 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.
- »Compare components« option allows to compare multiple software components 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, and displayed in the SLR.