

DATA SHEET

SNMP-Basic-Agent BS2000 (BS2000) Version 6.2

Basic agent for management with SNMP

Issue April 2017

Pages 3

Basic agent for SNMP-based network, system and application management with SNMP in BS2000/OSD

For customers wanting an SNMP- and/or HTTP-based network, system and applications management tool, Fujitsu offers the product SNMP Basic Agent BS2000. The short name of the product is SBA-BS2.

The SNMP basic agent in BS2000 serves to connect BS2000/OSD systems directly to a central management system for heterogeneous networks on the basis of the de facto protocol standard SNMP. It enables customers with large multi-vendor networks comprising heterogeneous systems to use SNMP for monitoring and control of the BS2000/OSD systems in the network from a central management platform (control center). In combination with the add-on products SNMP Standard Collection BS2000, SNMP Subagent UTM, and SNMP Subagent SM2 it provides comprehensive management functions, from traditional network management through system and applications management to the management of middleware.

The BS2000 is linked to SNMP management using the LAN connection supported by BCAM and the TCP/IP protocol. This means that a BS2000/OSD system may be included in the network like any other device, as a network element managed via SNMP. The SNMP basic agent understands and responds to SNMP protocol elements. As an add-on to the basic technology, the product also includes other subagents handling accesses to the objects of the system components and applications managed in BS2000/OSD.

An authorized user can obtain and modify BS2000 management information using an industry standard web browser. The SNMP basic agent BS2000 provides a web interface for the purpose. The SNMP information is inserted into HTML pages and the HTTP protocol is used to output it to the web browser, e.g. on a PC.

The high level of security of the BS2000/OSD server is guaranteed by using the SNMP link. The SNMP connection has been provided with a range of complementary functions (how for example authorization, access control and encryption of SNMP-data) designed to protect against unauthorized access that might see the data in the BS2000 or impair the availability of the BS2000/OSD server.



Functional Description

The functionality of the SNMP management system implemented in BS2000/OSD corresponds to that typical of SNMP management in general and even goes beyond it in various areas of functionality. The administrator at an SNMP management station is offered three levels of information. The first level is monitoring, i.e. central monitoring of the functionality of all the components in a network. Any fault situations are reported as they arise and are also indicated graphically (i.e. by colored icons on a network map), as text or as an audible alert.

At the second level an administrator can obtain details about specific faults or general information (e.g. configuration data). The relevant object values are displayed at the management station in the form of tables or graphics.

At the third level, passive monitoring and information gathering is supplemented by the option of active control over

the systems. Interventions can be made manually, e.g. using emulations or integrated applications. Management platforms such as Unicenter, OpenView NNM, Spectrum or Tivoli generally also permit automatic reactions to be defined. This is appropriate where it is possible for a fault report to be associated with a specific response, e.g. the restart of an application after a failure report.

In addition to many functional enhancements to existing subagents, level 6 (Version from 6.0) of the SNMP basic agent in the BS2000 includes two new subagents. The event subagent enables automatic responses to predefined situations and states, and the scheduler subagent enables the definition and control of timed processes.

The extensions in version 6.1 primarily serve the increase of the security within the network- and system-management. So that the sensitive data that transfers with the SNMP-protocol are protected, the master-agent can encode the data before the transfer alternatively. SNMP-data encoded as recipients

can use a suitable management-station or the autonomous management application of Console Monitor becomes. The full functionality of the SNMP agent in the BS2000 is provided by a combination of the SNMP basic agent, the standard collection of subagents and two other subagents for openUTM and openSM2, which can be purchased separately. The expansions in the version 6.2 supported the new SQ servers (Intel-x86-processor based hardware models) and the extension connected with it in the BS2000/OSD V8.0.

The SNMP basic agent BS2000 contains the following:

- the SNMP master agent, which
 - implements the SNMP protocol and is therefore a basic requirement for SNMP management in the BS2000/OSD. It supports protocol versions SNMPv1, SNMPv2c and SNMPv3.
 - With utilization of SNMPv3, the authentication can be used with MD5 and the encoding of the BS2000 management information with DES, (56 bits key-length) is possible.
 - In addition to the SNMP protocol, BS2000/ OSD management information can be accessed and edited in the form of HTML pages using the HTTP protocol. Asynchronous SNMP traps can also be output at the web- browser.
 - an interface for connecting SNMP subagents is offered. That means, an access to additional system information is implemented and project-specific subagents can also be connected.
- the "Application Monitor" subagent for monitoring user applications, BCAM applications, BS2000/OSD subsystems and log files. Information written to a log file (directly in the BS2000 or in POSIX), can be sent to a management center as a message (SNMP trap). The "Application Monitor" is also able to evaluate job variables and generate SNMP traps as messages. It can likewise generate SNMP traps on status changes of subsystems in the BS2000/OSD.
- the "Console Monitor" subagent for transmitting BS2000 console messages to the "Console and Application Monitor" management application, for entering console commands and for responding to questions appearing on the BS2000 console/the monitor. The BS2000 messages are transmitted to the corresponding "Console and Application Monitor" using traps. Additional filters may be set in the BS2000 agent system in order to restrict the flow of messages.
- the supervisor subagent, which is linked especially closely to the master agent. It monitors all events that the master agent receives from the other subagents. Traps are generated upon logon and logoff of the other subagents and in the case of losing connections. This means that all subagents and the master agent in BS2000/OSD can be monitored with only one SNMP poll. Furthermore can start individual subagents over the supervisor subagent and finished.
- the event subagent, which executes periodic queries for MIB objects of other subagents and which can initiate simple actions if certain conditions are met. The actions might be sending traps or running SNMP set operations. A typical use is to monitor subagents that do not issue traps themselves.
- the scheduler subagent, which executes timed SNMP set operations that change the status of MIB objects. This could trigger changes in the monitored system or change the status of monitored items.
- the HTML subagent, which is required if customer-specific HTML pages are to be set up for Web access. It supplies the information for constructing the pages in the "custom" branch on the master agents.
- support for the system-specific parts of MIB-II (System Group and SNMP Group corresponding to RFC 1213) for network management. The associated administrative MIBs (RFC 2261 - 2265) are also supported in the SNMPv3 protocol variant.

TECHNICAL DETAILS

SNMP-BASIC-AGENT BS2000 V6.2

Technical requirement

Hardware

BS2000 Business Servers

Technical requirement

Software

Agent element

For SNMP Basic Agent BS2000 V6.2:
 BS2000/OSD-BC V7.0 or higher or OSD/XC V4.0 or higher,
 openNet Server V3.0 or higher,
 JV V14.0C or higher (if the Application Monitor is used).

Operating mode

Dialog

Implementation language

C

User interface

English/German

Installation

By the user on base of release notice and user guide.

Documentation

User Guide

The documentation is available in the form of online manuals at <http://manuals.ts.fujitsu.com/mainframes.html>.

Demands on the user

Knowledge of the operation of SNMP management systems and product installation in BS2000.

Training

See course offer at:

<http://training-mediaserver.ts.fujitsu.com/elearningmedia/catalog>

Conditions

This software product is subject to the general terms and conditions of the software product use and service agreement.

Ordering and delivery

This software product may be obtained from your local Fujitsu Technology Solutions regional office.

Information about environmental care, policies, programs and our Environmental Guideline FSC03230:

ts.fujitsu.com/aboutus

Take back and Recycling information: ts.fujitsu.com/recycling

All rights reserved, including intellectual property rights. Technical data subject to modifications and delivery subject to availability. Any liability that the data and illustrations are complete, actual or correct is excluded. Designations may be trademarks and/or copyrights of the respective manufacturer, the use of which by third parties for their own purposes may infringe the rights of such owner.

For further information see: ts.fujitsu.com/terms_of_use.html

Copyright © Fujitsu Technology Solutions GmbH 2017

Published by:

Fujitsu Technology Solutions GmbH
ts.fujitsu.com/bs2000