Licensed Program Specifications

IBM Parallel System Support Programs for AIX
Version 2 Release 4
Program Number 5765-529

The IBM Parallel System Support Programs for AIX (PSSP) software provides the functions required to manage the IBM RS/6000 SP computer as a full-function parallel system. The PSSP software supports up to 128 nodes. It provides a single point of control for administrative tasks and helps increase productivity by letting administrators view, monitor, and control system operation. The IBM Virtual Shared Disk device driver, which makes disks globally accessible, is also available with the PSSP software.

Highlights

The PSSP software provides a comprehensive suite of applications for the installation, operation, management, and administration of the IBM RS/6000 SP:

Installation: Installation of AIX on nodes is provided for by the Network Installation Manager (NIM).

Configuration Management: Node configuration data can be entered into the System Data Repository (SDR) using SMIT or line commands. The SDR provides storage and retrieval of system data across the control workstation and nodes.

Operation

- The Centralized Management Interface provides a SMIT-based interface for system management commands, as well as command line equivalents.
- The SP Perspectives applications provide graphical user interfaces for monitoring and controlling hardware, creating and monitoring system events, managing IBM Virtual Shared Disks, generating and saving system partition configurations, and setting up performance monitoring hierarchies and archiving. (A command line interface is also provided for monitoring and controlling frame and node hardware.)
- Tools are provided for orderly shutdown and restart of the system.

File Management: Groups of files can be defined as a file collection and changes to any files in that collection are propagated to the appropriate nodes.

User Management

- Commands are supplied to add, change, and delete users and passwords.
- Users have the same account, home directory, and environment across all nodes in the system.
- The **user.admin** file collection is provided for propagating user administration files to the nodes on the system.

Job Management: The Resource Manager server runs on one of the nodes and manages the execution of parallel jobs.

Accounting: Accounting support provides accounting record consolidation and parallel job accounting.

Change Management

- System partitions can be used to apply and test new levels of software.
- Parallel management commands can be used to apply maintenance directly to nodes.
- File collections can be used to propagate changed files to nodes that have the file collection installed.
- For extensive service, a new **mksysb** can be defined and the nodes reinstalled.

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Security: Authentication services, based on Kerberos IV, are provided for:

- The Sysctl remote command execution facility
- The SP System Monitor
- Versions of the **rsh** and **rcp** commands

Communication Subsystem Support: The Communication Subsystem supports the reliability and performance of the SP Switch and the High Performance Switch.

Availability and Problem Management

- High Availability Control Workstation (HACWS) function provides for a backup control workstation for your SP system. **Note:** HACWS is a separately priced feature.
- A single point of control for configuring, archiving, and maintaining various system logs on individual nodes is provided.
- Additional logs may be specified for use by applications.

Performance Monitoring: The Performance Toolbox Parallel Extensions (PTPE) for AIX is a performance monitor that provides access to performance information about RS/6000 SP hardware and software. **Note:** PTPE is a separately priced feature.

Version 2 Release 4 Enhancements

Version 2 Release 4 of the IBM Parallel System Support Programs for AIX provides support for new RS/6000 SP node enablement, AIX 4.2.1 (or later), AIX 4.3.1 (or later) in binary compatibility mode, and enhanced quality. Functional enhancements made in this release include:

New Hardware Support: The PSSP software now supports the following hardware:

- The 332 MHz SMP Wide and Thin nodes
- The SP Switch MX Adapter

Migration and Coexistence Support: Support is provided for migrating to PSSP 2.4 on its supported AIX releases from a number of earlier PSSP and AIX release combinations.

Support is provided for the coexistence in a system partition of PSSP 2.4 on its supported AIX releases with a number of earlier PSSP and AIX combinations.

Improved SP Switch Diagnostics: Support is provided for better problem determination facilities for the SP Switch, including:

- Improvements to diagnostic documentation and messages
- More detailed entries in the AIX error log and switch log to improve problem isolation

Specified Operating Environment

Year 2000 Readiness

This IBM Program, when used in accordance with its associated documentation, is capable of correctly processing, providing and/or receiving date data within and between the twentieth and twenty-first centuries, provided that all products (for example, hardware, software, and firmware) used with this IBM Program properly exchange accurate date data with it.

Machine Requirements

- IBM RS/6000 SP computer
- RS/6000 control workstation

For more information about hardware requirements, see *IBM RS/6000 SP: Planning, Volume 1, Hardware and Physical Environment* (available from your IBM representative).

Programming Requirements

The PSSP software runs on the IBM AIX operating system, version 4.2.1 (or later), or on AIX 4.3.1 (or later) in binary compatibility mode. The PSSP software is licensed to run on RS/6000 SP systems. The system software includes both proprietary and publicly available code. The publicly available software included is:

expect	Programmed Dialogue with Interactive Programs
Kerberos IV**	Authentication Service for Open Network Systems
NTP**	Network Time Protocol
Perl**	Practical Extraction and Report Language
SUP**	Software Update Protocol
Tcl**	Tool Command Language
TclX**	Extended Tool Command Language

Tk Tcl-based Toolkit

Original distribution of the full public code is included with no modifications by IBM. Support is provided only to insure proper operation within our environment. IBM provides no warranties for this public code.

All copyright notices in the documentation must be respected.

Licensed Program Materials Availability

Restricted Materials – No. This licensed program is available without source licensed program materials. It is available in object code.

Supplemental Terms

Designated Machine Identification

- Designated Machine Identification Required: No

Testing period

- Basic License: None.
- Satisfaction Guarantee: Yes.
- DSLO License: Not applicable.

Installation/Location License

- Not applicable. A separate license is required for each SP machine on which the licensed program materials will be used.

  Note: The code is licensed to the SP only, and may not be installed on workstations (or other nodes) outside of the SP complex, with the following exceptions:
  - The ssp.public module
  - The ssp.docs module
  - The ssp.clients module
  - The ssp.authent module
  - The ssp.top module
  - The ssp.top.gui module
  - The ssp.gui module
  - The ssp.sysctl module, client executable only (**sysctl**)
  - The ssp.perlpkg module
  - The ptpe.docs module

Usage License

- Not applicable.

Type/Duration of Program Services

- IBM will provide Central Service, including an IBM Support Center, only through the customer location designated for the basic license until discontinued by IBM upon six months written notice.
- AIX Support Line applies. For more information, refer to Service Announcement 694-018.

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