

Advanced Control Systems **CUSTOMER CARE SERVICES GUIDE**

2018 Edition



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Advanced Control Systems - Customer Support Services

For over 40 years, Advanced Control Systems has demonstrated the ability to support utility customers' needs in functionality and customizing the PRISM grid management system and NTX/RTU needs. The ACS team's primary mission is to support and respond to our customer's needs in "real-time".

Our flexible approach to support programs, together with our expert engineering staff, is the reason our systems never become outdated and our technology is future proof.

Every system is operated and configured differently, and each utility is unique; however, the core technology is based on a proven architecture that allows you to update, patch and upgrade your system online. We have a portfolio of programs and services that are intended to meet our customers' needs. You can get the assistance you need and discuss or activate any of these programs by calling the HelpDesk at 1.800.241.7317 or by emailing helpdesk@acspower.com.

ACS Support Programs

ACS Customer Care offers four bundled support programs to meet your business needs. We created these bundled programs to meet your utility's needs, and they have been designed based on our 40+ years' experience in supporting our customers. We can configure a unique set of services from the portfolio below to meet your specific needs.

Platinum

Preferred by most customers, this program is the most inclusive services bundle we offer. It has been designed to include the most needed services to optimize your investment.

Gold

This program includes standard business-hour support services for your hardware (HW) and software (SW) needs. This plan offers many optional a la carte services.

Silver

This program includes standard business-hour support services for your hardware and software needs. Optional hardware extended warranty coverage is available.

Bronze

This program includes resolution of software problems via software patches. Optional hardware extended warranty coverage is available.

RTU Support

This program includes standard business-hour support services for your ACS RTU products. Optional a la carte services are available, supported by added blocks of engineering and support hours, to meet your needs.

Service Programs Overview/Comparison

The table below is an overview/comparison of our standard programs with services bundled and optimized to meet your needs. However, any selection of the services can be provided as a customized program.

The services defined are available in the form of annual support programs or multiple year programs we refer to as Long-Term Support Agreements (LTSA).

| PRISM Service Plan | Platinum | Gold | Silver | Bronze |
|---------------------------------------|----------|----------|--------|--------|
| ACS SW Updates, Features, Fixes | ✓ | ✓ | ✓ | ✓ |
| Support from HelpDesk | ✓ | ✓ | ✓ | |
| 24 X 7 Emergency Help* | ✓ | ○ | | |
| Security Patch Management | ✓ | ○ | | |
| Anti-Virus Protection** | ○ | ○ | | |
| Database Management Service (DASMap™) | ○ | ○ | | |
| Diagnostic Service | ✓ | ✓ | ✓ | ✓ |
| Security Audit and Analysis | ○ | ○ | | |
| HW Coverage | ✓ | ✓ | ○ | ○ |
| Upgrade Planning Assistance | ○ | | | |
| Onsite and Consulting Services | ○ | ○ | | |
| Training – Customized, onsite | ○ | ○ | | |
| Training – Classroom | 1 course | 1 course | | |
| System Log Book | ✓ | ✓ | | |
| System Administration Services | ○ | ○ | | |
| PRISM TuneUp™ | ○ | | | |
| Engineering Hours (PRISM and RTUs) | ✓ | ○ | | |

○ = Option **✓ = Included in program**

* 24 X 7 Emergency Help - highly recommend having a redundant system; otherwise, up-charges may apply

** Anti-Virus Protection - Requires Security Patch Management

Our Service Level Targets

As part of our Quality Assurance program and our commitment to customers, and to meet our support service responsiveness criteria, ACS uses an internal escalation process visible to senior ACS management and monitored by an executive team on a routine basis. Customers have direct escalation paths to the Manager of Support and other Executive Management. All defects, issues, incidents, and problems reported to ACS Customer Care will be recorded as a customer case. All cases are managed and tracked through ACS implementation of Salesforce Service Cloud. Cases are reviewed and assigned based on severity and impact to your system.

Our targeted response times are based upon the urgency of your case. The more critical the business impact, the higher the priority. For verified Severity 1 base defects, the ACS Customer Care team will continuously work the issue to reach the most rapid resolution.

The following describes the defined levels of severity.

Severity 1: Critical - System is Down

The System is non-operational, users cannot access the system, the functionality is significantly decreased, or back up or other security of data can no longer be performed. The defect affects mission-critical functions or information in the production environment and may include, but not be limited to, data loss or corruption, system crash or missing major functionality.

Severity 2: Urgent - Operations Crippled

The System is operational with functional limitations or restrictions, but there is minimal business impact. Under a Severity 2, the defect will have a significant impact on the functionality of the application but does not require immediate release into the production environment. This condition allows continued use of the applications and systems using backup or secondary systems. Failures assigned this level cause no interruption in energy delivery/production.

Severity 3: High - Operations Coping

The System is operational with functional limitations or restrictions that are not critical to the overall system operation, and the condition has a moderate impact on the functionality of the application. However, the application remains usable by all groups. A functional error exists for which there is an acceptable workaround. Defects assigned to this level cause no interruption in system availability.

Severity 4: Medium - Minor Impact to Operations

The System is operational, with problems or errors which have minor impact on system operations. Severity 4 defects have a minor or cosmetic impact in the functionality of the application in a production environment. Issues assigned to this level cause no interruption in system availability.

The Customer Care organization has set response targets which are measured and reported as performance statistics.

| Severity Level – Targeted Response Times | Targeted ACS Response | Targeted Customer Closeout |
|--|-----------------------|----------------------------|
| 1. Critical – System down | < 30 min | < 2 hrs |
| 2. Urgent – Operations crippled | < 2 hrs | < 1 day |
| 3. High – Operations coping | < 8 hrs | < 2 days |
| 4. Medium – Minor impact to operator | <48 hrs | < 5 days |

These are targeted maximum times that may change based on actual statistics

Table 1: Targeted response times

Description of ACS Services

The services listed below can apply to both Systems (PRISM) and, in most cases, to RTU installations based on the NTX product line.

ACS SW Updates, Features, Fixes

With all support programs, you have the full rights to SW maintenance fixes and general availability (GA) SW releases related to the ACS SW systems you have under license. Each customer is responsible for accessing these updates and installing them on the ACS system. ACS is available to assist as needed. ACS HelpDesk personnel are available from 8:00 AM to 8:00 PM EST, Monday through Friday, for all software-related deficiencies. The HelpDesk team will assign you a case and a case owner, and a subject matter expert will diagnose your issue and determine a fix.

Support from HelpDesk

ACS HelpDesk personnel are available from 8:00 AM to 8:00 PM EST, Monday through Friday, for any troubleshooting or general questions. Some examples of general questions that are supported by the HelpDesk team in this capacity are:

- ✓ User modifications
- ✓ Area of Assignment (AoA)
- ✓ Report generation or edits
- ✓ General topics covered in any of our manuals, etc. The HelpDesk team will assign you a case and a case owner, and a subject matter expert will diagnose your issue and determine a fix.

This is a standard service for the Platinum, Gold and Silver programs.

24 X 7 Emergency Help

ACS offers 24x7 emergency support for emergency situations relating to your PRISM system—particularly a system down that requires immediate assistance from an expert technical engineer to help get your system back to peak performance as quickly as possible. A redundant system is highly recommended for this option, otherwise up-charges may apply. Non-emergency calls should be routed through the HelpDesk during normal business hours. 24 x 7 is standard in the Platinum program and optional in the Gold Program.

Security Patch Management

Persistent cyber security threats and growing regulatory requirements have made regular maintenance and patching of your system more important than ever. ACS established the PRISM System Patch Management Service to support your needs. Patching is available as a monthly or quarterly service to allow you to keep your PRISM system up-to-date with critical Linux® OS and application patches intended to minimize cyber security vulnerabilities performed remotely by ACS Support Engineers. This service includes:

- ✓ Security Patches to all loaded modules and programs
- ✓ Enhancement updates to all loaded modules and programs
- ✓ Bug fixes to all loaded modules and programs

To take advantage of this service, you will need:

- A redundant PRISM™ system
- Red Hat Enterprise Linux 6, update or above
- PRISM version 10.0 or above
- PRISM Linux Restore included on your system (or another means to restore from backup)
- VPN router supplied by ACS

Patch Management is standard in the Platinum program and available as an option in the Gold Program.

(CIP customers are generally sent an encrypted drive for patching, because some nodes may not be accessible remotely.)

Anti-Virus Protection

ACS provides Sophos™ Malware and Anti-Virus protection to customers that have selected the Security Patch Management option. When a new system leaves the factory, ACS certifies that the system is free of all Malware and any viruses. Persistent cyber security threats and evolving regulatory requirements have made regular Malware and anti-virus protection of your system more important than ever. You can depend on ACS to perform these services with our in-house and field engineering staff. This service is available as an option in the Platinum and Gold programs.

Database Management Service (DASmap)

Outage Management and Advance Distribution Applications require an accurate network model updated on a regular basis, typically imported from a GIS. This service will update your model for you, allowing your engineers to focus on operations. ACS will perform the incremental import from the GIS using the DASmap tool (user does not need to maintain his own). The updates will be verified and a DASDB will be supplied by ACS to your quality assurance system (QAS) environment or agreed upon server ready to propagate to production. ACS will work closely with a utility-designated system administrator, allowing the utility to build additional competency during the term of the agreement.

ACS will maintain the PRISM system topology and load flow models (as applicable), including updates to the model-driven graphics, to delivery of current and uninterrupted functionality. Maintenance will be performed on a set schedule. This service is available as an option in the Platinum and Gold programs as a monthly/quarterly/bi-annual remote service.

Diagnostic Service

Every customer on a current support program will receive a monthly system diagnostic and report. This report includes valuable information concerning the health of each of your nodes, such as:

- Disk usage, to help you plan for future storage and archiving needs.
- CPU and memory usage, to help you plan for system growth or recognize the need for additional nodes.
- The size of Event (DREF) and Historical (HDA) data files, to alert you that you need to clean-up or archive these files.

Security Audit and Analysis

ACS will perform a complete security audit and analysis on your system, make recommendations, install, and set up the necessary hardware and software, and provide on-going service and support. This service is available as an option in the Platinum and Gold programs.

HW Coverage

ACS will act as the single point of contact for all HW issues on HW supplied through ACS. After the original equipment manufacturer (OEM) warranty period has expired, ACS will provide an extended warranty under this service. ACS will assist with diagnosing the problem and will coordinate with the HW supplier to repair/replace. If applicable, an ACS engineer will perform hardware replacement, helping you improve product uptime.

- ✓ Remote problem diagnosis and support
- ✓ Onsite hardware support
- ✓ Coordination with OEM supplier
- ✓ Replacement parts and materials included
- ✓ Provide PRISM support when new or replacement hardware is provided

This is standard in the Platinum and Gold programs and optional in the Silver and Bronze programs.

Upgrade Planning Assistance

We will review your system, understand your operational requirements, make recommendations, and provide you with advice for improvements to keep your system running at peak performance to meet your changing needs. This is an optional component in the Platinum program as a remote service.

Onsite and Consulting Services

If you need assistance beyond the scope of our HelpDesk, ACS can provide onsite or consulting services. From database and display to custom scripts, ACS expertise is available.

- Database/display coordination and assistance, tailored to fit your application suite. This can be a combination of work done on-site and preparation done at our office.
- System administration services, designed to optimize system performance. This can be a combination of work done on-site and preparation done at our office.
- Start-up assistance—anything from turn-key preparation to just a little bit of fine-tuning. We can customize a plan for those who need a little bit of everything

This service is optional in the Platinum and Gold programs.

Training & Education Services

To help you master your system, we offer a multitude of hands-on in-depth training programs. ACS offers a comprehensive curriculum of courses for your training needs. These classes are offered throughout the year at our Norcross, Georgia training facility, or they can be conducted at your site. For a complete list of training classes, course descriptions and schedules, please refer to the Registered Users area of our website at <http://acspower.com>. The Platinum and Gold programs include one ACS training course at the ACS facility for one person.

System Log Book

The ACS System Log Book provides a cohesive handbook to record your PRISM™ system information. It includes guides to document your system configuration and record scheduled or immediate system events. This log book is an invaluable troubleshooting tool. Use the calendar to stay on top of important system maintenance. Keep your system in top shape by making regular backups and following the monthly tips to monitor your system. Everyone working on the system can document each system events using the System Log Book.

System Administration Service

ACS has established optional PRISM System Administration Support services to manage activities on your system for you. An ACS engineer is assigned to maintain the complexities of your system. The assigned engineer will spend five days on-site to document your system and plan the services

for your PRISM system. Each month your engineer will perform up to eight hours of remote services via the VPN Diagnostic router to perform, maintain, and backup your PRISM system. Sample tasks include, but are not limited to:

- ✓ Creating new users
- ✓ Resetting user passwords
- ✓ Lock/unlock user accounts
- ✓ Monitor server security
- ✓ Monitor special services, etc.
- ✓ System performance tuning
- ✓ Keeping the network up and running
- ✓ Troubleshooting any reported problems
- ✓ Applying operating system updates, and configuration changes
- ✓ Performing backups of data
- ✓ Verify peripherals are working properly

This service is available as an option in the Platinum and Gold programs.

PRISM TuneUp™

If your PRISM system is running inefficiently, you may be spending more time tracking down system issues than it would take to prevent them. Keep your system running at its best, make the most of its feature-rich environment and protect yourself from disaster with the ACS PRISM TuneUp. PRISM TuneUp is an onsite full week program provided one time per year. The program is customized for each PRISM system, helping you achieve maximum performance. A complete TuneUp program will include:

- ✓ System backups and images
- ✓ Linux Patch analysis, process table, memory, CPU, I/O, and upgrades
- ✓ PRISM alarms, historical data, operation, and upgrades
- ✓ Preventive maintenance recommendations
- ✓ Data synchronization and file system cleanup
- ✓ Resolution of outstanding issues

ACS will also evaluate and optimize additional features to ensure that your system runs at peak performance.

- Disaster Recovery Plan

We will design and help you implement a reliable disaster recovery plan to repair any system damage and recover data following natural disasters.

- System Maintenance

ACS will review your log files, error logs, and system messages and will manage all maintenance activities. This includes printer lists and unpurged spool files, disk allocation and usage, and kernel maintenance. We will give you a report of what was discovered and how it was fixed.

- Security Review

ACS will review all your users, checking password history as well as the accounts themselves. We will help you customize user environments to ensure compliance with your policy and procedures. If your company does not have a policy, we will assist you to implement one based on best practices.

- System Backup Strategy

System backup is a critical task. When we are finished tuning up your system, you will have three levels of backup, including a full image (PRISM System Restore), a full cpio or tar copy of the system, and a complete database backup. We will automate incremental backups to suit your system needs.

- Wrap-up

We will observe your system and recommend improvements. And, before we leave, we will go over the system evaluation that started the TuneUp process, item by item, to be sure that your needs have been addressed and your questions answered.

PRISM TuneUp is available as an option in the Platinum program.

Engineering Hours

ACS has established Engineering Hours Support service to help customers with services from an expert engineer—including, but not limited to:

- ✓ Engineering time used for new upgrades
- ✓ On and offsite training
- ✓ Remote Access training
- ✓ ACS training class
- ✓ On-site visit by engineer
- ✓ New Scripts
- ✓ Adding Users
- ✓ Adding Substations

The annual engineering hours allocated each year will “roll over” to the following year to accommodate changes in project timing. All trips and hours will expire if not utilized by the end of the agreement. Travel and expenses are billed at cost. This service is standard in the Platinum program and optional in the Gold program and in the NTX RTU Support program.

NTX RTU Support

ACS offers basic and 24x7 support programs for our NTX/Connex/NTU/RTU products, with options for remote phone support and on-site support. ACS Customer Support strives to respond to your support request based on the guidelines discussed earlier (in the section headed *Our Service Level Targets*) and following the guidelines set out in *Table 1: Targeted response times*.

Remote phone support

- It is recommended that the customer be available to access the NTX via a PC and an Ethernet cable when calling ACS for phone support.
- If needed, provide ACS with remote internet access to the PC connected to the NTX. It is recommended that the customer set up this connection prior to calling ACS for phone support.

Note: If remote access is not available to ACS, then the customer is responsible for following the verbal instructions provided by the ACS Support Engineer.

Remote phone support will cover:

- NTX functionality troubleshooting
- NTX communications troubleshooting; make sure the NTX communication setup is functioning properly.
- Questions concerning NTX RTU(s) System(s) modifications
- Operational questions
- Addition of NTX System(s) assets
- Addition of data points to NTX RTU System(s)
- Addition of data points to Slave RTU(s) or IED(s) (if applicable)
- Assisting Customer's consultants for specific project(s) – this will need to be approved by the customer in writing prior to rendering the support

Onsite Support

- Discounted engineering and technical support rate for troubleshooting

Additional NTX RTU Support Services

This optional support is added to your service account by adding a block of support hours to the Services Agreement. These hours can then be applied to either NTX support or 3rd Party RTU support. And if you have PRISM, these hours can be transferred and used to support the systems. Please see the section headed *Engineering Hours* (page 11) for details on the services offered.

Onsite NTX Administration

- Point-to-point checkout
- Firmware updates
- Configuration files
- Installation and calibration needs

- Scheduled annual NTX RTU System inspection
 - Remote Access NTX RTU System Configuration
 - Providing necessary hardware and software
 - Legacy support: support all your ACS RTUs and interfaces to IEDs
 - “OEM Agnostic”

- Training
 - Customized class utilizing a spare unit provided by the Utility (subject to a minimum of 6 students)
 - NTX programming and troubleshooting
 - NTX Logic Programming
 - Basic communications configuration and troubleshooting
 - Remote access to fundamentals on-line course

Yearly support options

ACS offers two options:

- Standard (M-F) 8AM – 8PM ET
- 24x7

Our Customer Commitment

At ACS, our #1 guiding principle is Customer Care—exceeding our customers’ expectations in all that we do. Our support programs exemplify that commitment. We will work with you to develop a system roadmap that will fully leverage your investment in our technology, helping you meet your current needs and prepare for the future.

We have a user forum—for Advanced Control Systems customers, which is accessible via our web site: www.acspower.com. We encourage you to visit our web site often and to send us your suggestions for improvements. We value your input, requests, and comments, which we take seriously when devising new services, support programs, new or improved products and applications.

For more information, or to order your customized support package, please call the HelpDesk at 800.241.7317 or email us at helpdesk@acspower.com. The HelpDesk is staffed from 8:00 AM to 8:00 PM EST to address all problems, requests, reports, or questions you may have.

**ACS thrives in a culture
of success through
commitment, integrity,
and professionalism.**