



Technology to serve and protect

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# ***DATA & TECHNOLOGY MONITORING PROCESS***

**Product Brief**  
Version 2.2

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The purpose of this white paper is to bring clarity and understanding to the technology and processes Appriss uses to monitor the data for the VINE System. Some of the topics covered include: the standard data monitoring thresholds and alert processes used, methods of data collection, and the technology used to monitor the data collection process.

## I. Standard Data Monitoring Thresholds and Alert Process

Each data feed is configured based on historical patterns and customer data. For each data feed, a threshold is set that indicates the length of time in minutes that can pass between subsequent data exchanges before an alert is generated for that specific feed.

Thresholds can be set based on grouping of days and time periods within those groups. One grouping is called the “work week” (Monday through Friday) and another group called “weekend” (Saturday and Sunday). Each grouping has a peak threshold and an off-peak threshold.

If the threshold for receiving data is exceeded, a Data Alert is created and the Appriss Operations Center (AOC) will research. An alert does not indicate that a data feed is broken, it only indicates that data was expected based on historical trends, and that the data flow process has not matched those trends.

### 3 Types of feeds include:

- **Single Data Feed** – A single data feed is used for the purpose of collecting and managing data from a single system. Appriss monitors the data feed from the single system that is responsible for collecting the data.
- **Central Data Feed** – A central data feed is used for the purpose of managing and collecting data for multiple agencies with a single system. Appriss will monitor the feed from the central system that is responsible for collecting the data, but not the individual systems that contribute data to the central system.
- **On-Demand Feed** – An on-demand feed is used for the purposes of providing data when requested by an end user. Appriss does not monitor the availability of these feeds.

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## **VINE Data Monitoring**

- VINE Jail and DOC customers enter 90% of data between the hours of 9:00 AM and 9:00 PM Monday through Friday
- VINE Court customers enter 99% of data between the hours of 9:00 AM and 4:00 PM Monday through Friday
- VINE Probation and Parole customers enter 99% of data between the hours of 9:00 AM and 5:00 PM Monday through Friday
- Sex Offender Solutions customers enter 99% of data 9:00 AM and 5:00 PM Monday through Friday.

## **VINE Jail Data Monitoring**

Below is an example of how a threshold may be set for a typical Jail Management System (JMS) Data Alert.

For the work week scenario, the “peak” threshold would be set at 240 minutes between 9:00 AM and 9:00 PM. The “off-peak” threshold would be set at 460 minutes (due to the fact that data flows less frequently in the late night and early morning hours) between 9:01 PM and 8:59 AM. If either of these thresholds is exceeded, a Data Alert is created.

For the weekend scenario, the “peak” threshold would be set at 460 minutes between 9:00 AM and 9:00 PM. The “off-peak” threshold would be set at 600 minutes (due to the fact that data flows less frequently in the late night and early morning hours) between 9:01 PM and 8:59 AM. If either of these thresholds is exceeded, a Data Alert is created.

## **VINE Courts Data Monitoring**

Generally, VINE Courts data is received once a day, Monday through Friday. Here is an example of how a threshold may be set for a CMS Data Alert.

For the work week scenario, the “peak” threshold would be set at 7,200 minutes between 9:00 AM and 6:00 PM. There would not need to be an “off-peak” threshold, because courts are typically not in session past 6:00 PM. If the threshold is exceeded, a Data Alert is created.

## **VINE Probation and Parole (P&P) Data Monitoring**

Generally, VINE Probation and Parole (P&P) data is received from 9:00 AM to 5:00 PM, Monday through Friday. The frequency in which systems send data will vary by customer.

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Here is an example of how a threshold may be set for a P&P Management System Data Alert.

For the work week scenario, the “peak” threshold would be set at 60 minutes between 9:00 AM and 5:00 PM. The “off-peak” threshold would be set at 460 minutes (due to the fact that data flows less frequently in the early morning hours) between 5:01 PM and 8:59 AM. If either of these thresholds is exceeded, a Data Alert is created.

### **VINE Sex Offender Data Monitoring**

Generally, VINE Sex Offender data is received from 9:00 AM to 5:00 PM, Monday through Friday. The frequency in which systems send data will vary by customer.

Here is an example of how a threshold may be set for VINE Sex Offender Management System Data Alert.

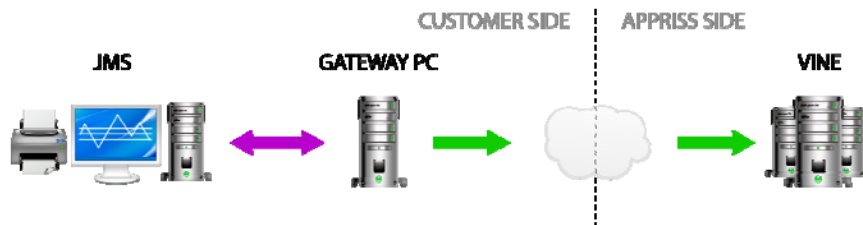
For the work week scenario, the “peak” threshold would be set at 60 minutes between 9:00 AM and 5:00 PM. The “off-peak” threshold would be set at 460 minutes (due to the fact that data flows less frequently in the early morning hours) between 5:01 PM and 8:59 AM. If either of these thresholds is exceeded, a Data Alert is created.

## **II. Methods of Data Transport**

The different types of methods to collect data are called data transport methods. Below are the four (4) most common types of data transport methods that Appriss uses to interact with the various criminal justice systems.

### **Types of Data Transport:**

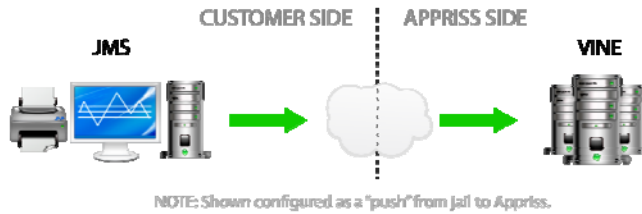
1. **Gateway PC** – a computer that interfaces with a Jail Management System (JMS) or Court Management System (CMS) collects data and sends it to Appriss over a dial-up or ISP based Internet connection. The data is sent using standard FTP, or our proprietary VFTP. Data is “pushed” from this gateway computer to the VINE system.



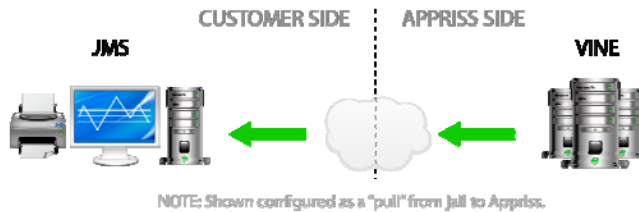
*1.1 Illustration of Data transmission via a Gateway PC Data Feed*

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- 2. Non-Gateway** - data is sent directly to Appriss from the JMS or CMS across an internet connection using either FTP or other web services. The data can either be pushed by the JMS/CMS or pulled from the JMS/CMS by Appriss.

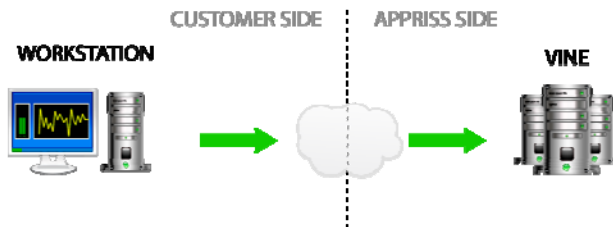


2.1 Illustration of a "push" Data transmission via a Non-Gateway Data Feed



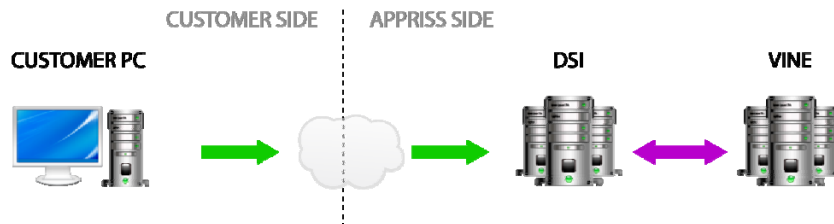
2.2 Illustration of a "pull" Data transmission via a Non-Gateway Data Feed

- 3. Workstation** - an Appriss provided computer with jail or case management software that collects and sends data to the VINE system.



3.1 Illustration of Data transmission via a Workstation Data Feed

- 4. Hosted Workstation** – a web-based jail or court management system that is hosted by Appriss that collects and puts the data into the VINE system.



4.1 Illustration of Data transmission via a Hosted Workstation Data Feed

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**Security NOTE:** To ensure the transmissions are secure, the Internet connection should be over a VPN or the customer PC should communicate via a secure connection (for example SFTP or WS-Security).

### **III. What technology does Appriss use to monitor the services?**

**Site Agent** – Site Agent is a program that runs on the gateway computer and provides limited capabilities. Site Agent performs minor corrective actions such as remapping a network drive, restarting a VPN connection, or re-booting the computer itself. If Appriss provides hardware for the purposes of collecting data, Appriss will use Polling and Site Agent technology to monitor the equipment.

**Gateway SNMP** - Some programs that are installed by Appriss on the gateway computer have the ability to run simple diagnostic checks to test the connection between the JMS/CMS and the gateway computer. Results of these checks are sent back to the Appriss Data Center via the Simple Network Management Protocol (SNMP). These checks are usually limited in scope and may help catch connection issues between the JMS/CMS and the gateway computer.

**Spectrum** – Spectrum is the Simple Network Management Protocol (SNMP) monitoring system that allows the Appriss Operations Center (AOC) to monitor the diagnostic checks performed on the gateway computer as well as the Data Alerts.

### **Conclusion**

This white paper covers some of the basic points and key terms to assist in better understanding how the data comes into the VINE system and what monitoring and data alert processing is provided. Because there are varying customer needs, the technology used to gather, monitor and alert is very complex. As with all technology, it is not perfect, however Appriss is firmly committed to continuously evolving and improving this system, and its processes.

## Appendix A – Terms and Definitions

- **Business Week Day** - the days between and including Monday to Friday. This does not include public holidays or weekends.
- **Data Alert** – an alarm that appears in the Appriss Operations Center (AOC) indicating that an agency has exceeded a historical time frame to send VINE data. This does not mean that there is a technical issue, just that the facility is beyond an average data transmission timeframe.
- **Data Feeds** – a transmission of data is between two independent entities. The transfer of data can be directionally or bi-directionally.
- **Data Points** - in a data feed there are a series of points that provide the path for sending the data from one computer to another. These points can include the Agency's router, switch, database, connectivity, power, Jail, Probation, Record or Court Management System, Agency's connectivity provider, the Internet, Appriss's connectivity provider, power, Application and Services platforms.
- **Polling** - a method of determining, via Simple Network Management Protocol (SNMP), the availability of the VINE hardware used to receive or collect data
- **Pulled Data** – the method in which Appriss requests and receives or gathers the data from the Agency.
- *EXAMPLE: An SQL query job is run against a JMS, and the data is “pulled” from the system and then sent to Appriss.*
- **Pushed Data** – the method in which the Agency sends or transmits the data to Appriss. *EXAMPLE: In a secure FTP method, the customer “pushes” data to Appriss.*
- **Monitoring** – seeking the state of a system, server, service, application, or network.
- **Off Peak Threshold** - an off peak time threshold is a range during the time of day to cover for the lowest volume of data file receipt. Example – 9:00 PM to 8:59 AM with the acceptable tolerance to be 360 minutes (6 hours).
- **Peak Time Threshold** – a peak time threshold is a range during the time of day to cover for the highest volume of data file receipt. Example - 9:00 AM to 6:00 PM with the acceptable tolerance to be 120 minutes (2 hours)

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- **Threshold** - the point that must be exceeded to produce a given effect or elicit a response. Thresholds are time based and configurable.
- **Scheduled Threshold** – allows for a designated time of day to be selected as the expected time of data receipt. Example - Monday at 9:00 AM with a 30 minute tolerance before or after that time.
- **VINE® - Victim Information and Notification Everyday** - allows victims to obtain up-to-date information about the custody status of offenders and or case event information 24 hours a day, seven days a week. VINE makes this offender and case data available to crime victims and the general public via its customized and secure notification system. Individuals can register to receive automated notifications about the offender via a toll free telephone number, a VINE Service Representative Operator (VSR), a TTY device, and/or a public web site. Automated notifications are then sent to the registrant via phone, email, letter, pager, SMS, and or a TTY device.
- **VINE Services** - includes five (5) distinct offerings within the application itself:
  - Offenders in a Jail (county and local agencies)
  - Offenders in a DOC (Department of Corrections)
  - Offenders with Court Case(s) and Court related Events
  - Offenders on Probation and/or Parole
  - Offenders who have been identified as Sex Offender
- **Weekend Threshold** – a weekend threshold is in place for monitoring the specifics of Saturday and Sunday data receipt. Example = Saturday 12:01 AM till Sunday 11:59 PM with the acceptable tolerance of 480 minutes (8 hours).

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