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ELECTRONIC DATA GATHERING, ANALYSIS, AND RETRIEVAL

EDGAR Public Dissemination Service – New Subscriber Document

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1. PDS System Overview

The United States Securities and Exchange Commission (SEC) has designed the Electronic Data Gathering, Analysis, and Retrieval (EDGAR) System to support the assembly, transmission, validation, acceptance, and dissemination of public documents as filed by public companies, management firms, and individuals pursuant to SEC securities regulations. Once received and accepted by EDGAR and posted to sec.gov, public submissions are immediately disseminated to all interested parties (Subscribers) external to the SEC EDGAR network. A remote EDGAR Public Dissemination Service (PDS) receives a direct feed from the EDGAR host and initiates the real-time dissemination to Subscribers. All PDS Subscribers are managed through this remote site.

This document provides key business, technical configuration and implementation, and troubleshooting information to potential and existing Subscribers of the EDGAR dissemination feed. For the most current version of this document, please refer to: <http://www.sec.gov/info/edgar/ednews/dissemin.htm>.

Throughout this document, the Subscriber equipment and applications are referred to as the client, Subscriber, or Dissemination Receipt Server (DRS). The primary PDS site, hardware, and applications are referred to as PDS. The primary PDS and the alternate PDS server are both hosted in AWS Cloud. In addition, the EDGAR primary and secondary (backup) hardware and operations are referred to as EDGAR and EDGAR Disaster Recovery (DR), respectively.

Maximus Inc. is the primary contractor in support of the development of the SEC's EDGAR system. The original PDS system became operational in 1998, and on July 1, 2014, Attain, LLC (later acquired by Maximus Inc.), assumed full responsibility for support of the EDGAR PDS System.

EDGAR processes about 3,000 filings per day during non-peak periods and 4,000-12,000 filings per day during peak periods.

There are several peak submission periods throughout the calendar year, including the following:

- Four 10-Q peaks (40-45 days after the 1st – 4th calendar quarter: May, August, November, and February, respectively, with each quarterly peak having an accelerated filing period 30-35 days after the quarter end)
- One 10-K/24F-2NT peak (late March, usually consisting of large 10-K submissions, with an associated accelerated filing period from mid-March)
- Two N-SAR peaks (late February and late August)
- One SC 13G William's Act peak (mid-February, usually the highest volume of submissions, but small file size)
- Four Ownership peaks (two business days following the end of each calendar quarter)
- One N-PX peak (at the end of August)

For more information on peak submission periods, please visit the SEC public website, <https://www.sec.gov/edgar/filer-information/calendar>.

During these “high-activity” periods, EDGAR may receive up to 250-500 MB of live, public data in one hour or up to 5+ GB of data in a single business day. Disseminated submissions may be as small as 1 KB or as large as 200 MB, depending on their purpose, and contain only public documents. Private documents that are part of filer submissions are not disseminated with the original submission (*.dissem file). They are stored internally at the SEC for a period of time, and then upon SEC discretion, some are released as a separate dissemination file (*.pr file).

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The average submission size is around 500 KB. Submissions, which are composed of a header and concatenated documents, are disseminated in ASCII text (no binary is disseminated without being Uuencoded first). Concatenated documents can have ASCII/SGML, HTML, XML, XBRL, or Uuencoded PDF, JPG, or GIF formats.

ASCII/SGML documents are no wider than 80 characters per line, except in specifically designated sections of document text, identified as tables (<TABLE>), where a 132-character width limit is supported. HTML, XML, and XBRL document text has no inherent width limits. Uuencoded document text is 64 characters wide.

After receiving a submission, EDGAR assigns an accession number (ex: 0000350001-05-001000) to the submission, then parses it to extract key information from the header and document. This information is loaded into the EDGAR database and subsequently runs through a rigorous series of syntactic and semantic validation rules before being accepted by EDGAR. After acceptance, the submission is reassembled with informative header tags and the original public documents before being disseminated to the SEC internet site and to PDS. The acceptance and dissemination process typically takes less than two (2) minutes from the receipt of filing submissions to EDGAR.

EDGAR transmits the dissemination stream of submissions to the PDS server. Upon receipt each submission is compressed, before the PDS server disseminates, through an SFTP (Secure File Transfer Protocol) and/or SCP (Secure Copy Protocol) software protocol, a copy of each submission to each Subscriber's outbox and through a firewall to the Internet Protocol (IP) address to each Subscriber's DRS site. (NOTE: PDS does not parse and/or modify filing submissions in any way prior to dissemination to Subscriber.)

From 6:00 a.m. to 10:00 p.m. Eastern Standard Time (EST), the PDS site receives EDGAR public dissemination submissions.

Publicly disseminated submissions also reside on the PDS FTP site, where Subscribers can download filings directly, either per file or in a zip file for the entire day's package. PDS Subscribers may utilize an active pull from the PDS FTP server.

1.1 PDS Points of Contact

Contact	Type	Email / Website	Phone
Adam Burkhart	PDS Manager	adamburkhart@maximus.com	N/A
PDS Business	Business contact	PDSBusiness@maximus.com	N/A
PDS Help Desk*	Helpdesk contact	PDSHelpDesk@maximus.com	N/A
Filer Technical Support**	EDGAR (filings)	https://www.sec.gov/edgar/filer-information/contact-filer-support	(202) 551-8900
SEC - Office of Investor Education & Advocacy	EDGAR (PDS)	oiea@sec.gov	(800) 732-0330
SEC Contact Information	Various SEC Divisions	https://www.sec.gov/contact-information/sec-directory	See website for more information

* PDS Help Desk hours are from 6:00 AM EST – 10:00 PM EST, on SEC business days.

** Filer Technical Support hours are 9:00 AM EST – 5:30 PM EST, on SEC business days.

Table 1: PDS Contact Information



1.2 New Subscriber Setup Requirements

Subscribers will receive data over an existing internet connection. Therefore, 1) the connection must have a static public IP address or a valid hostname (DNS resolution is required) assigned for the DRS and 2) the connection must be configured to allow data to flow into that address. The ability to ping is also preferred to allow for more comprehensive monitoring and troubleshooting. Subscribers receiving data over a PDS feed may be required to whitelist PDS IP addresses.

Data is disseminated through a dedicated feed(s) to subscribers using an SFTP and/or SCP software protocol. The PDS team will request technical information from the Subscriber (see Section 2). Once the technical information is received by the PDS team, PDS will provide a public SSH Key for installation. Once installed, PDS will use the technical information provided to establish a connection to the client server using our private key. To set up a dedicated feed, Subscribers will need to provide the PDS team with technical information, such as hostname/IP, preferred protocol, and test target/target directory.

In order to support simultaneous, encrypted dissemination of submissions, immediate verification, and authentication to a variety of Subscribers, Subscribers have the choice to use one of PDS's transfer protocols, an SFTP and/or SCP software protocol. SFTP and SCP are used to *push* filings from PDS to subscribers over TCP/IP connections.

Once a Subscriber's feed(s) connection is established and active, utilizing their username and SSH key, data is pushed through the dedicated feed(s), from 6:00 a.m. to 10:00 p.m. Eastern Standard Time (EST).

For Subscribers wishing to download, that is, *pull* filings, or if the Subscriber cannot receive real-time submission for whatever reason, or if a Subscriber wishes to retrieve a specific submission or set of submissions previously disseminated by PDS in the past 5 (five) days, then the Subscriber can access the PDS FTP server with log in credentials provided by PDS in order to download filings. At the Subscriber's request, the PDS Helpdesk will provide access to the FTP server to download submissions.

The DRS should be able to receive and process a minimum of 100 MB of EDGAR public submission data per hour. (NOTE: There may be hours during peak periods when over 250-500 MB of public submission data will need to be processed.) A secure router/firewall at the Subscriber's site to service the DRS is also recommended.

All relevant technical questions from a New Subscriber regarding the implementation, connection, and activation of their PDS feed should be sent via email to the Maximus PDS Helpdesk POC listed in Table 1.

1.3 SSH Key and Installation Procedure

Subscribers are required to install the SSH key on their DRS. In addition, the Subscriber will need to whitelist the PDS IP address. Following installation, PDS will send a test filing to confirm the connection is working prior to activating the feed for dissemination. Depending on the operating system (UNIX or Windows), the PDS team will send the steps to the Subscriber to install the SSH key.

2. Becoming a PDS Subscriber

All interested parties wishing to subscribe to the EDGAR Public Dissemination Service (PDS) should contact the Maximus PDS Business POC listed in Table 1. The interested party must formally provide Maximus Inc. via e-mail with complete answers to the questions below:



- What is the OS and version loaded and maintained on the DRS?
- Would the Subscriber like an active PDS feed or pull directly from the PDS FTP site?
- When is the Subscriber available to test the dissemination feed from the PDS? Does the Subscriber have a redundant DRS that can be used for testing?
- Who are the Subscriber's POCs, for both technical configuration and business matters? (Please include their names, e-mail address, and telephone numbers.)

Due to the sensitive nature of this information, all correspondence received by potential Subscribers will be managed confidentially.

After confirming the Subscriber's interest with their POCs and/or after receiving complete responses to the above questions, PDS Business will send a Subscriber Agreement for signature to the interested subscriber. Once Agreement is signed, PDS Help Desk will reach out to begin technical configuration and testing of the feed.

The Subscriber is responsible for the expenses of acquiring, developing, and operating their DRS. These expenses cover hardware, software, development, and connectivity charges. These expenses are in addition to the mandatory monthly, quarterly, or annual subscription fee paid by the Subscriber to Maximus Inc.

The SEC and Maximus Inc. reserve the right, at any time, to disable a connection should operational considerations warrant this action. Sensitive information, such as DRS and router IP addresses, user IDs, passwords, and software licenses, which are necessary to interact with the PDS, should be utilized and maintained with absolute discretion by the Subscriber.

The delivery of the Initial Subscription package will constitute the beginning of the Subscriber Implementation period, which may last up to one (1) month (for installation, configuration setup, and thorough testing) or as little as (1) day before the Subscriber will be ready to receive the live PDS feed. During this time, the Subscriber should have sufficient time to become familiar with their feed and test/troubleshoot all necessary connections and downloading options.

2.1 Initial Subscription Package

The Initial Subscription package consists of the following:

- SSH public key (for initializing and utilizing SFTP/SCP connection)
- PDS Subscriber Technical Specification
- PDS support e-mail addresses & phone numbers
- FTP log in credentials (if required/as needed)

Once PDS Business receives the signed Subscriber Agreement, the PDS team will provide the Subscriber's Initial Subscription package and initiate their implementation process.

2.2 Implementation Schedule

Once the PDS Helpdesk has all the necessary technical information and the Subscriber has successfully installed .ssh key (SFTP/SCP), as well as completed the procurement and installation of any connectivity necessary for dissemination, the PDS Helpdesk will schedule a period to test connectivity to the Subscriber DRS. These tests will occur at a time convenient for both the PDS Helpdesk and the Subscriber.



The test will include validating a successful connection can be made using Telnet from our Primary and Alternate server using SFTP/SCP, then sending a small text file to the DRS to ensure proper operation of the subscriber's feed. Once the connection is established, the feed can be turned on at a time convenient for the Subscriber. (NOTE: PDS will disseminate information to all dedicated feeds. Initial activation of feed(s) will occur, however, only after the Subscriber's payment of their initial invoice is confirmed.)

Each subscription includes a block of non-billable support hours allocated to installation, configuration, and technical support. The Subscriber Agreement details the number of hours that are allocated to non-billable support. Once the block of support hours is exhausted, additional support will be provided on a time and materials basis at the rate specified in the Subscriber Agreement.

2.3 Operational Procedures and Troubleshooting

Of primary concern to the SEC and Maximus Inc. is the maintenance and support of the Subscriber DRS. Once live, the Subscriber DRS must be operational with minimal down time from 6:00 a.m. to 10:00 p.m. ET, Monday- Friday, except for SEC Holidays. The Subscriber must have operational support on-hand during this time and the Subscriber must forward any information regarding POC changes to the PDS Helpdesk, as soon as possible.

Subscribers will need to enable procedures for daily startup, active monitoring of the PDS feed, submission processing and cleanup, nightly shutdown, and troubleshooting scenarios. Subscribers should configure their DRS appropriately, especially noting the performance and storage space necessary to support EDGAR peak submission periods and initial morning burst.

PDS will attempt to transmit (and retransmit) each submission.

If the Subscribers DRS develops receipt problems, the PDS Helpdesk will redirect the specific Subscriber's feed to a staging area to prevent impacting the other Subscribers. Each submission is transmitted independently and PDS logs the results accordingly. Each Subscriber transmission is automatically logged into a database and monitored for failures. Noting queue (unfinished jobs) buildup is a primary mechanism through which the PDS Helpdesk monitors all the Subscriber dissemination feeds.

If a Subscriber's site is determined to be non-operational (without prior announcement of a planned outage or known problem from the Subscriber), this technique will quickly alert the PDS Helpdesk of the issue, and they will promptly notify the Subscriber there is a problem with the Subscriber receiving the PDS feed. The PDS Helpdesk will then work with the Subscriber to troubleshoot the problem and identify corrective action or a work-around. When the issue is resolved, the PDS Helpdesk will communicate with the Subscriber to ensure the feed is working correctly.

In any networked communication system, a variety of problems can interrupt the flow of data. PDS Subscribers should actively monitor the status of their DRS.

Once a problem has been identified and communicated, the PDS Helpdesk and the Subscriber will determine if the severity of the problem warrants further action. If the outage is temporary and has been resolved, the PDS Helpdesk will then re-establish the feed and, upon confirmation the filings are being delivered successfully, deliver all filings held in the staging area. If the downtime extends longer than the current business day, we recommend accessing the PDS FTP site to easily download any missing filings.

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An End-Of-Day (.EOD) file is transferred to Subscribers at 10:00 p.m. ET named dissem2_MM-DD-YYYY.EOD. This is an audit file and contains a list of all submissions (*.dissem, *.paper, *.pr and *.pc) as disseminated from EDGAR between 6:00 a.m. and 10:00 p.m. that day. The dissemination of this file signifies that EDGAR has closed dissemination.

2.4 Subscriber Information and FAQ

The following are common questions raised by Subscribers and their respective answers:

Question	Answer
Can I have more than one connection at the PDS site?	Only one Primary Feed will be supplied per subscription. However, a Subscriber may want a Secondary Feed or additional Subscriptions for Primary and Secondary connections. The PDS Subscriber Agreement contains the rate schedule for PDS connections.
Will there be Beginning of Business (BOB) control identifier from the PDS at 6:00 a.m. each business day?	Currently, there is no plan for one. The Subscriber should ensure their feed is operational (listening to the incoming port) from 6:00 a.m. to 10:15 p.m. EST (M-F). Troubleshooting processes will begin if the Subscriber server is unavailable prior to BOB.
Will there be Close of Business (COB) control identifier from the PDS at 10:00 p.m. each business day?	The last transmission for each business day will be the Audit file, named dissem2_MM-DD- YYYY.EOD, which contains a listing of all disseminated submissions from EDGAR for that day. This file is distributed between 10:01 p.m. EST and 10:15 p.m. EST, depending on pending submission processing activity within EDGAR. At a minimum, the Subscriber should keep the DRS operational (listening to the incoming port) from 6:00 a.m. to 10:15 p.m. EST (M-F)
How can my DRS receive submissions that were not disseminated to it due to a temporary service outage?	The PDS Helpdesk team works with all Subscribers to ensure they receive all disseminated data. If you have had an outage, the Helpdesk will know and already be working to ensure all missing files are set aside until your outage has been restored. If the outage is temporary and has been resolved, the PDS Helpdesk will then re-establish the feed and, upon confirmation fillings are being delivered successfully, deliver all filings held in the staging area. If the downtime extends longer than the current business day, the PDS Helpdesk will create a subset zip file for the appropriate period and arrange with the Subscriber a method of delivery that can include posting it on the PDS FTP site for the Subscriber to easily download, or simply dropping it in their daily feed.
How do I keep track of the sequence of submissions each day?	EDGAR does not assign a sequence number to the disseminated submission. It is the Subscriber's responsibility to track and record each submission received from EDGAR. Also, the Audit file transmitted at the end of each business day contains a list of all disseminated submissions for the day.
Can two PACs (Post Acceptance Corrections) for the same Accession Number be disseminated by the SEC in a single day?	Yes, however, PAC filenames also include the exact hour, minute, and second they are created, significantly reducing the probability a duplicate PAC can be generated.
Who do I contact for all PDS FTP Server issues?	Contact the PDS Helpdesk if you cannot access the site.
What if the Subscriber needs to update their DRS to a different platform?	The Subscriber needs to inform the PDS Helpdesk of their intended platform change. The platform upgrade will have to be carefully tested, as if this were a new Subscriber being added to the PDS configuration.
Does the daily Audit file contain a list of submissions disseminated to my DRS site or to all sites?	The daily Audit file, disseminated around 10:00 p.m. each business day, contains a listing of all *.dissem, *.paper, *.pr and *.pc submissions sent from EDGAR to the PDS site.

Question	Answer
If I don't get an Audit file at the end of the day, how can I obtain one?	The Audit file is available on the PDS FTP site. If it's determined that PDS support is needed following an internal analysis, please contact the PDS Help Desk.
Can I request an Audit file during the business day?	The daily Audit file is disseminated around 10:00 p.m each business day. The PDS FTP site retains a rolling 5 days' worth of filings, inclusive of the Audit file. If you need an audit file beyond 5 business days, you may contact the PDS Help Desk for assistance.

Table 2: PDS Frequently Asked Questions

2.5 Index

Terms	Definitions
Dissemination Receipt Server (DRS)	The Subscribers equipment and applications the PDS feed disseminates EDGAR filings.
Public Dissemination Service (PDS)	The PDS provides the public with an accurate, complete and fast method of obtaining all accepted and valid EDGAR filings.
PDS Feed	A TCP/IP connection that utilizes SFTP and/or SCP with an SSH keypair that provides a constant stream of disseminated EDGAR filings to Subscribers.
FTP Site	A PDS server where, if Subscriber wishes to retrieve a specific submission or set of submissions previously disseminated in the past 5 (five) days, files can be downloaded either per file or in a zip file for the entire day's package.
End-Of-Day file (.EOD)	The daily Audit file, disseminated around 10:00 p.m. each business day, contains a listing of all *.dissem, *.paper, *.pr and *.pc submissions sent from EDGAR to the PDS site.
Peak Filing Period	Time frames of when EDGAR will receive peak filing submissions based on historical data. Filers should be aware of these peak days and plan their filings accordingly. EDGAR filing volume on peak days tends to be highest in the hour prior to the end of the filing day. Peak periods vary depending on form type.
Morning Burst	An initial push of filings that occurs when EDGAR begins dissemination at 6:00 am and consists of around 250 files that are disseminated at once to subscribers.

Table 3: Index of Definitions