

# **Geocortex Essentials - Security Plan AOT, ANR, E911, VCGI, and VDH**



## **Overview**

This document represents the security plan for the Geocortex Essentials application, including software, data, and server access level security, put forth by the Geocortex Admin Team. This document describes the administration of the Geocortex Essentials server and aims to define roles and responsibilities between the Geocortex Admin Team and DII.

## **Section 1 – Geocortex Admin Team**

The Geocortex Administrator Team currently consists of one representative from each Agency involved in the purchase of the Geocortex software. The Geocortex Admin Team members are:

ANR – Peter Telep

VCGI – Steve Sharp

AOT – Lesley Bean

VDH – Pete Young

E911 – Jeremy McMullen

Email communication with the Geocortex Admin Team should be through a distribution list (geocortex@state.vt.us) to be configured by DII, ensuring that all Geocortex Admin Team members are notified. The Geocortex Admin Team structure is detailed in section V.1 of the Geocortex Essentials Memorandum of Understanding (MOU).

## **Section 2 – Accessibility and Security**

### *Internet Accessibility*

Geocortex Essentials is a web-based framework for building and deploying interfaces for web-based GIS applications. As such, the Geocortex Essentials servers (both development and production servers) require

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exposure to the internet over port 80 using HTTP, and it will require DNS resolution (<http://maps.vermont.gov> for the production server and <http://mapsdev.vermont.gov> for the development server) . Additionally, the Geocortex server will need to access to the state's email relay server to allow email to be sent from Geocortex Essentials' email component. This component will process email through relay.state.vt.us – local SMTP service is not required.

### *Data Security*

While potentially sensitive GIS-related data may be exposed through this web interface, there are a number security options that will be implemented, some in combination including:

1. In many cases, the sensitive portions of the GIS-related data will be stripped out prior to exposure on the web.
2. If there is a need to serve sensitive data using the Geocortex Essentials, then application-level security is available and will be implemented.
3. Data served by Geocortex Essentials comes from databases or ArcGIS Server services. In the case of ESRI's ArcSDE data engine, SDE implements its own level of security which is tied to the security implemented at the Microsoft SQL Server instance that ArcSDE sits upon. ESRI's ArcGIS Server allows the ability to secure services via HTTPS protocols or password protected services.

The Geocortex Essentials Security Schema is defined in Section V of the Geocortex Essentials MOU.

### **Section 3 – Remote Access**

The Geocortex Admin Team will need DII to setup and configure remote access to the Geocortex Essentials server, such as Terminal Services (Remote Desktop Protocol - RDP) to perform any installation, removals, upgrades or patches to any of the software listed in the SLA. Note that this access is only intended for administrative use when

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supporting software and will rarely be used. DII will need to create OS account logins to allow remote access through Terminal Server as detailed in section 4. Additionally, DII will need to configure remote file access to those areas of the server indicated in Section 4 below. This access can be limited to those specific folders, and the Geocortex Admin team should be able to perform their file administration duties, noted in section 4, through FTP or Terminal Services (RDP). Most site configuration and administration will be done using the Geocortex Site Manager interface, which is done over port 80 via HTTP. FTP and RDP will be used as a secondary method when specific options cannot be configured via the Geocortex Site Manager. Specific server permissions are designated in section 4 below.

Additionally, from time to time, agencies may request limited-time access for consultants to the Geocortex server. As this access will take place external to the GovNet network, it will mostly require a VPN, but should use the most restrictive technology without affecting efficiency, if an alternative is available. Access will be granted for 90 days, and be limited to the hours of 6:00AM and 7:00PM. Requests for consultant access will be submitted to DII via email (With a CC: to the Geocortex Admin Team) no later than 10 working days prior to the beginning of the consultant's work. DII will review the request and if there are no additional concerns, DII will allow consultant access for 90 days. If DII has security concerns, DII will communicate these concerns via email to the Geocortex Admin Team within 3 working days of receiving the extension request.

If further consultant access is needed beyond 90 days, a request for a 90-day extension can be made via email to DII, and a CC: the Geocortex Admin Team, no later than 10 working days prior to the expiration of the initial 90 days. DII will review the request and if there are no additional concerns, DII will allow continued consultant access for an additional 90 days before the current 90 days expires. If DII has security concerns, DII will communicate these concerns via email to the Geocortex Admin Team within 3 working days of receiving the extension request.

This access will be monitored and logged, showing dates and times of access, as well as changes made by the consultant.

The 90 day period can be re-evaluated by the Geocortex Admin Team at a later time if should any member of the Geocortex Admin Team find it necessary.

#### **Section 4 – Server Permissions**

Server users and roles are as follows:

- *Administrator* – Windows Administrator, full control of server (DII).

- *Geocortex Essentials Instances, User Groups, and Logins*

To address security concerns for the partnering agencies in a shared environment, each partner agency will have its own instance of Geocortex Essentials. Instances will be created and named respectively for AHS, ANR, E911, VCGI, and VTRANS. A local Window's Security group (Admin\_<agency>) that will be set as the Site Administrator for that instance. In the near-term Local Window's user accounts will be used to control the instances, but in the future they may be replaced by VSMS AD domain accounts (the Admin\_<agency> group could also be configured as aVSMS AD group).

The naming convention for users will be the first initial of first name and whole last name (i.e. dgewissler for Dejung Gewissler). The following instances will be configured as subfolders of the Geocortex Essentials install directory located at: C:\Program Files (x86)\Latitude Geographics\Geocortex Essentials\. The corresponding Admin\_<agency> group will have "full control" over their respective folders.

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- AHS (Admin\_AHS)
- ANR (Admin\_ ANR)
- E911 (Admin\_E911)
- VCGI (Admin\_VCGI)
- VTRANS (Admin\_VTRANS)

Passwords for all accounts will be maintained according to the State of Vermont's "System/Service Password Policy"<sup>1</sup>

### **Section 5 – Server Activity**

Any activity being considered for the Geocortex server that is not directly related to serving Geocortex map sites must be discussed with and approved by the entire Geocortex Admin Team. Such activities include, but are not limited to, the hosting of any web pages/sites that are not hosted through the Geocortex Essentials software framework.

### **Section 6 - Server or Site Issues & Resolution Procedures**

In the event that an issue or problem including but not limited to overall server performance and behavior, site errors beyond an individual site's configuration, corrupt or unexplained missing files, unusual Geocortex Rest Manager behavior, inaccessible or missing web pages, or rest manager/FTP/server access is realized, the person(s) who noticed the issue or problem will contact via email the Geocortex Admin Team to confirm the issue or problem. This email should state the sender's role and server permissions, fully document the issue or problem, and include any initial steps taken toward resolution.

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<sup>1</sup> [http://dii.vermont.gov/Policy\\_Central](http://dii.vermont.gov/Policy_Central)

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If the issue or problem cannot be resolved within the Geocortex Admin Team and it is deemed that the issue or problem lies outside the Geocortex software and any supporting software necessary for the operation of Geocortex, the facilitator of the Geocortex Admin Team will contact DII's Helpdesk via email (cc the Geocortex Admin Team). This email should state the sender's role and server permissions, fully document the issue or problem, include any steps taken toward resolution including any applicable communication with the Geocortex Admin Team, Latitude Geographics and/or related vendors, and if applicable include the IP address of the computer(s) having the issue or problem.

If the issue or problem is deemed to be related to the Geocortex software and any supporting software necessary for the operation of Geocortex, the facilitator of the Geocortex Admin Team will contact Latitude Geographics Help Desk/Vermont representative via email (cc the Geocortex Admin Team). This email should fully document the issue or problem and include any steps taken toward resolution including any applicable communication with the Geocortex Admin Team, Site Managers, and/or related vendors.

Upon receipt or notification of a solution or resolution, if warranted based on the severity of the issue or problem, the facilitator of the Geocortex Admin Team will notify the Geocortex Admin Team and DII of the solution plan and any impacts to the server, like service interruption, before implementation.

### **Section 7 – Geocortex Essentials Security Schema**

The Geocortex Essentials Security Schema is defined in Section V of the Geocortex Essentials MOU.

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## Section 8 - Network Diagram

The network diagram below is for reference only. It represents the Geocortex Admin Team's general understanding of the configuration and traffic flow to and from the various servers involved in the Geocortex Essentials implementation. The diagram shows both current and final server locations – some of the servers are currently in transit to the locations shown.

