

#### **Smart Grid Services**

Cloud Services: Data Centers

# Landis Gyr+

# Secure and Extensible Smart Grid Delivery Platform

### **Overview**

Landis+Gyr's Cloud Data Centers help ensure reliability and availability for mission critical applications. An end-to-end, certified delivery facility with built-in security, redundancy and disaster recovery measures, our data centers deliver customers operational success.

The Landis+Gyr team focuses exclusively on Smart Grid data and is driven by industry best practices. The data center's high availability architecture is key to providing utilities of all sizes the most cost effective service possible.

Our primary North America data centers are located in Virginia and California. Here and throughout the U.S., all centers are configured to provide an elastic, accessible, secure and compliant platform for Landis+Gyr's cloud based solutions. Successfully serving 300+ customers for 20+ years, we continue to expand our services offered to meet the evolving demands of today's utility.

#### **FEATURES & BENEFITS:**

Why Landis+Gyr makes a difference.

 High Availability Architecture:
Flexible physical and virtual infrastructure support varied applications and database

platforms in highly available configurations

Scalable & Available Power Infrastructure:

2N+2 redundancy for all data center infrastructure enables 100% availability of power including maintenance windows

#### Standards Driven:

ISO, ITIL and SSAE16 certified personnel and processes. Ongoing reviews ensure compliance to the latest standards

- Secure Environment: Multilayer physical security including biometric and 24x7 monitoring
- Proven and Trusted Partner: 20+ years of hosting experience with utility only customers helped define our best practices for todays Landis+Gyr service



# **Superior Data Center Facilities**

#### **Campus Facilities and Access**

All data centers are secure facilities with no public access and 24x7 manned security with digital surveillance. Facilities access is controlled by centralized electronic access control systems. Multi-factor identification and multi-level security zones with man-traps provide multi-layer security for data and devices.

#### Power Distribution and Backup Power Supply

Patented 2N+2 infrastructure design with 100% availability SLA for power infrastructure. Highly intelligent and self healing N-Matrix data center management (DCIM) system is integrated into operations for real-time control and monitoring.

#### **Fire Detection and Suppression**

In addition to raised floor and pre-action, dual-interlock, dry pipe fire suppression with photo-electric early warning smoke detection system, integration with DCIM provides an additional layer of early detection and notification.

#### **Environmental Control**

Centralized industrial chiller plant with automatic controls to maximize operating efficiency and PUE. High efficiency cooling infrastructure with both airside and waterside economization. Real-time monitoring via integration to DCIM.

#### Certifications

Landis+Gyr Data Centers undergo regularly scheduled audits to maintain the following certifications: SSAE16 (certified by Third party). Annual penetration testing is done by a third party security provider. Our operations centers also comply with ISO 9001; 2000, 14001; 2004 and 18001; 2007 standards.

#### Staffing

Data center staff have earned ITIL certifications including, Foundations, Operations Support and Analysis (OSA) and Planning Protection and Optimization (PPO). Every day, without exception, the staff monitors access, systems and alerts to ensure a fully operational facility.

## **Technical Summary**

#### **Internet Connectivity**

Our fully redundant internet connection is carrier-neutral with dedicated, leased connections to multiple providers on a variety of physical paths.

#### **Network Architecture**

Our network architecture provides maximum uptime with redundancy and rapid failover across the switching infrastructure.

#### Virus Control

All data centers utilize an enterprise level malware system, resulting in immediate alerts upon any malware detection. Signature files are updated daily for immediate defense against targeted attacks and zero-day exploits.

#### **Security Firewall/Data Access**

The secured environment exceeds industry standards for data and asset protection. Perimeter firewalls are in place to protect all ingress and egress traffic and also isolate the customer environment from all other environments. IPS/IDS appliances are strategically placed, and all inspected traffic is collected and monitored 24x7. Landis+Gyr applications use secure interfaces for all access.

#### Monitoring, Change Management and Support

Landis+Gyr utilizes enterprise class monitoring that helps us to easily detect, capture and diagnose issues and events across multiple IT systems. This delivers more insight into application and infrastructure performance to reduce total costs and avoid business impacting downtime. Landis+Gyr follows ITIL based change management processes for controlling the lifecycle of all changes to our systems and strengthen governance with repeatable, controlled, and auditable service operations.

#### Data protection, Backups and Disaster Recovery

In compliance with industry best-practices, primary data is stored on RAID-protected disks in a high availability, fault tolerant environment. Backups are managed via online and near-line solutions that provide multiple points from which to restore. Recovery options include cold and warm site designations. The data protection process is regularly audited and evaluated to ensure the most timely and efficient methods to protect every stage of the information lifecycle.

In addition to standard business continuity processes we offer real-time fail-over options for disaster recovery.

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