

**UNITED STATES DISTRICT COURT  
FOR THE WESTERN DISTRICT OF TEXAS  
WACO DIVISION**

**BCS SOFTWARE, LLC,**

Plaintiff

v.

**LANDIS+GYR TECHNOLOGIES,  
LLC, AND LANDIS+GYR  
TECHNOLOGY, INC.**

Defendants

**Case No. 6:20-cv-00005**

**JURY TRIAL DEMANDED**

**ORIGINAL COMPLAINT FOR PATENT INFRINGEMENT**

Plaintiff BCS Software, LLC (“Plaintiff” or “BCS”) hereby files this Original Complaint for Patent Infringement against Defendants Landis+Gyr Technologies, LLC and Landis+Gyr Technology, Inc. (collectively “Defendants” or “Landis+Gyr”), and alleges, on information and belief, as follows:

**THE PARTIES**

1. BCS Software, LLC is a limited liability company organized and existing under the laws of the State of Texas with its principal place of business in Austin, Texas.
2. On information and belief, Landis+Gyr Technologies, LLC is a Minnesota limited liability company with its principal place of business at 6436 County Rd. 11, Pequot Lakes, MN 56472. Landis+Gyr Technologies, LLC may be served through its registered agent, Corporation Service Company, 2345 Rice Street, Suite 230, Roseville, Minnesota, 55113.

3. On information and belief, Defendant Landis+Gyr Technology, Inc. is a company incorporated in Delaware with its principal place of business at 30000 Mill Creek Ave., Suite 100, Alpharetta, GA, 30022. Landis+Gyr Technology, Inc. may be served through its registered agent, Corporation Service d/b/a – Lawyers Incorporating Service Company, 211 E. 7th Street, Suite 620, Austin, Texas, 78701.

### **JURISDICTION AND VENUE**

4. This action arises under the patent laws of the United States, 35 U.S.C. § 1, *et seq.* This Court has subject matter jurisdiction under 28 U.S.C. §§ 1331 and 1338(a).
5. Defendants have committed acts of infringement in this judicial district.
6. On information and belief, Defendants maintain regular and systematic business interests in this district and throughout the State of Texas including through their representatives, employees and physical facilities.
7. On information and belief, the Court has personal jurisdiction over Defendants because Defendants have committed, and continue to commit, acts of infringement in the State of Texas, have conducted business in the state of Texas, and/or have engaged in continuous and systematic activities in the state of Texas. On information and belief, Defendants' accused instrumentalities that are alleged herein to infringe were and continue to be used, imported, offered for sale, and/or sold in the Western District of Texas.
8. On information and belief, Defendants voluntarily conduct business and solicit customers in the state of Texas and within this District, including, but not limited to, Oncor, Austin Energy and City Public Service ("CPS").

9. On information and belief, Defendants voluntarily conduct business through partnerships with entities based in this District, including, but not limited to, Consert, Inc.
10. On information and belief, Defendants generate substantial revenue from such customers and business partners located within this District and from the acts of infringement as carried out in this District. As such, the exercise of jurisdiction over Defendants would not offend the traditional notions of fair play and substantial justice.
11. Venue is proper in the Western District of Texas pursuant to 28 U.S.C. § 1400(b).

#### **NOTICE OF BCS' PATENTS**

12. BCS is owner by assignment of U.S. Patent No. 6,240,421 entitled "System, software and apparatus for organizing, storing and retrieving information from a computer database." A copy may be obtained at: <https://patents.google.com/patent/US6240421B1/en?q=6240421>.
13. BCS is owner by assignment of U.S. Patent No. 6,421,821 entitled "Flow chart-based programming method and system for object-oriented languages." A copy may be obtained at: <https://patents.google.com/patent/US6421821B1/en?q=6421821>.
14. BCS is owner by assignment of U.S. Patent No. 6,438,535 entitled "Relational database method for accessing information useful for the manufacture of, to interconnect nodes in, to repair and to maintain product and system units." A copy may be obtained at: <https://patents.google.com/patent/US6438535B1/en?q=6438535>.
15. BCS is owner by assignment of U.S. Patent No. 6,658,377 entitled "Method and system for text analysis based on the tagging, processing, and/or reformatting of the input text." A copy may be obtained at: <https://patents.google.com/patent/US6658377B1/en?q=6658377>.

16. BCS is owner by assignment of U.S. Patent No. 6,662,179 entitled “Relational database method for accessing information useful for the manufacture of, to interconnect nodes in, to repair and to maintain product and system units.” A copy may be obtained at:

<https://patents.google.com/patent/US6662179B2/en?q=6662179>.

17. BCS is owner by assignment of U.S. Patent No. 6,895,502 entitled “Method and system for securely displaying and confirming request to perform operation on host computer.” A copy may be obtained at: <https://patents.google.com/patent/US6895502B1/en?q=6895502>.

18. BCS is owner by assignment of U.S. Patent No. 7,200,760 entitled “System for persistently encrypting critical software data to control the operation of an executable software program.” A copy may be obtained at:

<https://patents.google.com/patent/US7200760B2/en?q=7200760>

19. BCS is owner by assignment of U.S. Patent No. 7,302,612 entitled “High level operational support system.” A copy may be obtained at:

<https://patents.google.com/patent/US7302612B2/en?q=7302612>.

20. BCS is owner by assignment of U.S. Patent No. 7,533,301 entitled “High level operational support system.” A copy may be obtained at:

<https://patents.google.com/patent/US7533301B2/en?q=7533301>.

21. BCS is owner by assignment of U.S. Patent No. 7,730,129 entitled “Collaborative communication platforms.” A copy may be obtained at:

<https://patents.google.com/patent/US7730129B2/en?q=7730129>.

22. BCS is owner by assignment of U.S. Patent No. 7,774,296 entitled “Relational database method for accessing information useful for the manufacture of, to interconnect nodes in, to repair and to maintain product and system units.” A copy may be obtained at:

<https://patents.google.com/patent/US7774296B2/en?q=7774296>.

23. BCS is owner by assignment of U.S. Patent No. 7,840,893 entitled “Display and manipulation of web page-based search results.” A copy may be obtained at:

<https://patents.google.com/patent/US7840893B2/en?q=7840893>.

24. BCS is owner by assignment of U.S. Patent No. 7,890,809 entitled “High level operational support system.” A copy may be obtained at:

<https://patents.google.com/patent/US7890809B2/en?q=7890809>.

25. BCS is owner by assignment of U.S. Patent No. 7,895,282 entitled “Internal electronic mail system and method for the same.” A copy may be obtained at:

<https://patents.google.com/patent/US7895282B1/en?q=7895282>.”

26. BCS is owner by assignment of U.S. Patent No. 7,996,464 entitled “Method and system for providing a user directory.” A copy may be obtained at:

<https://patents.google.com/patent/US7996464B1/en?q=7996464>.

27. BCS is owner by assignment of U.S. Patent No. 7,996,469 entitled “Method and system for sharing files over networks.” A copy may be obtained at:

<https://patents.google.com/patent/US7996469B1/en?q=7996469>.

28. BCS is owner by assignment of U.S. Patent No. 8,171,081 entitled “Internal electronic mail within a collaborative communication system.” A copy may be obtained at:

<https://patents.google.com/patent/US8171081B1/en?q=8171081>.

29. BCS is owner by assignment of U.S. Patent No. 8,176,123 entitled “Collaborative communication platforms.” A copy may be obtained at:

<https://patents.google.com/patent/US8176123B1/en?q=8176123>.

30. BCS is owner by assignment of U.S. Patent No. 8,285,788 entitled “Techniques for sharing files within a collaborative communication system.” A copy may be obtained at:

<https://patents.google.com/patent/US8285788B1/en?q=8285788>.

31. BCS is owner by assignment of U.S. Patent No. 8,554,838 entitled “Collaborative communication platforms.” A copy may be obtained at:

<https://patents.google.com/patent/US8554838B1/en?q=8554838>.

32. BCS is owner by assignment of U.S. Patent No. 8,819,120 entitled “Method and system for group communications.” A copy may be obtained at:

<https://patents.google.com/patent/US8819120B1/en?q=8819120>.

33. BCS is owner by assignment of U.S. Patent No. 8,984,063 entitled “Techniques for providing a user directory for communication within a communication system.” A copy may be obtained at: <https://patents.google.com/patent/US8984063B1/en?q=8984063>.

34. BCS is owner by assignment of U.S. Patent No. 9,396,456 entitled “Method and system for forming groups in collaborative communication system.” A copy may be obtained at:

<https://patents.google.com/patent/US9396456B1/en?q=9396456>.

35. Defendant, at least by the date of this Original Complaint, is on notice of the above patents owned by BCS.

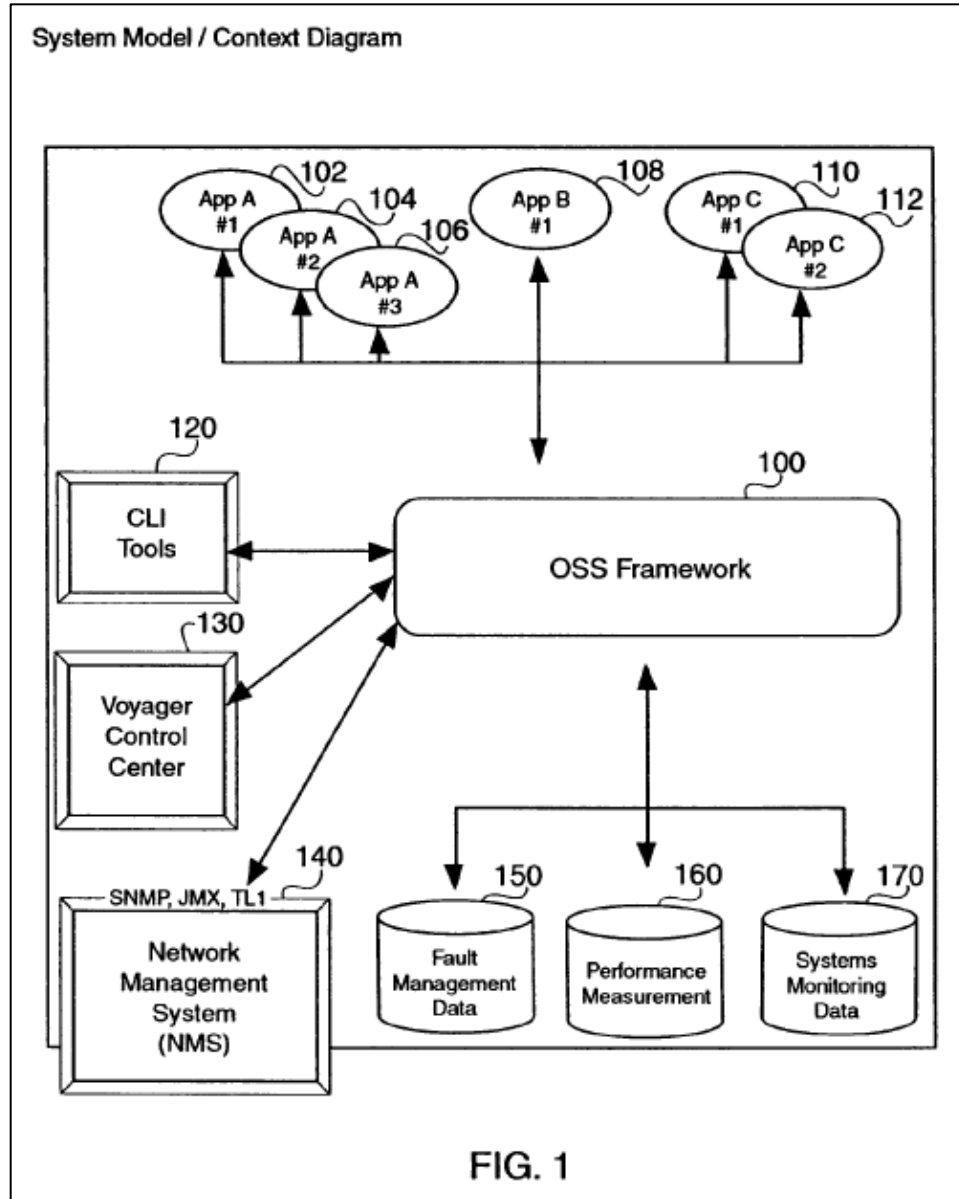
**U.S. PATENT NOS. 7,302,612, 7,533,301 AND 7,890,809**

36. BCS is the owner, by assignment, of U.S. Patent No. 7,302,612 (“the ’612 Patent”), U.S. Patent No. 7,533,301 (“the ’301 Patent”) and U.S. Patent No. 7,890,809 (“the ’809 Patent”), each entitled HIGH LEVEL OPERATIONAL SUPPORT SYSTEM (hereinafter collectively referred to as “the Patents-in-Suit”).

37. The '809 Patent issued on February 15, 2011, and is a continuation of the '301 Patent, which issued on May 12, 2009. The '301 Patent is a continuation of the '612 Patent, which issued on November 27, 2007. Thus, the Patents-in-Suit share a common specification.
38. The Patents-in-Suit are valid, enforceable, and were duly issued in full compliance with Title 35 of the United States Code.
39. The Patents-in-Suit were invented by Messrs. Blaine Nye and David Sze Hong.
40. The priority date of each of the Patents-in-Suit is at least May 1, 2003.
41. The Patents-in-Suit relate to:

A high-level Operational Support System (OSS) framework provides the infrastructure and analytical system to enable all applications and systems to be managed dynamically at runtime regardless of platform or programming technology. Applications are automatically discovered and managed. Java applications have the additional advantage of auto-inspection (through reflection) to determine their manageability. Resources belonging to application instances are associated and managed with that application instance. This provides operators the ability to not only manage an application, but its distributed components as well. They are presented as belonging to a single application instance node that can be monitored, analyzed, and managed. The OSS framework provides the platform-independent infrastructure that heterogeneous applications require to be monitored, controlled, analyzed and managed at runtime. New and legacy applications written in C++ or Java are viewed and manipulated identically with zero coupling between the applications themselves and the tools that scrutinize them.

'809 Patent (Abstract).



*Id.* (Figure 1).

42. The field of the invention of the Patents-in-Suit is to improvements in “wireless communication carriers. More particularly, it relates to operational support system (OSS), application/systems management, and network management.” *Id.*, col. 1:17-20.

43. As disclosed in the Patents-in-Suit, “[m]any network management technologies exist that allow operators to manage applications and devices at runtime. For instance, SNMP, TL1



and JMX each attempt to provide operators with the ability to manipulate and affect change at runtime.” *Id.*, col. 1:22-26.

44. As disclosed in the Patents-in-Suit, “[t]he fundamental of each is similar. It is to manipulate the objects of an application through messaging.” *Id.*, col. 1:26-27.

45. As disclosed in the Patents-in-Suit, “SNMP is the standard basic management service for networks that operate in TCP/IP environments. It is intended primarily to operate well-defined devices easily and does so quite successfully. However, it is limited to the querying and updating of variables.” *Id.*, col. 1:28-32.

46. As disclosed in the Patents-in-Suit, “Transaction Language 1 (TL1) is a set of ASCII-based instructions, or ‘messages,’ that an operations support system (OSS) uses to manage a network element (NE) and its resources. *Id.*, col. 1:32-35.

47. As disclosed in the Patents-in-Suit, “JMX is a Java centric technology that permits the total management of objects: not only the manipulation of fields, but also the execution of object operations. It is designed to take advantage of the Java language to allow for the discovery and manipulation of new or legacy applications or devices.” *Id.*, col. 1:35-40.

48. As disclosed in the Patents-in-Suit, “Operational Support for enterprise applications is currently realized using a variety of technologies and distinct, separate services. For instance, network management protocols (SNMP, JMX, TL1, etc.) provide runtime configuration and some provide operation invocation, but these technologies are not necessarily geared toward applications.” *Id.*, col. 1:40-45.

49. As disclosed in the Patents-in-Suit, “[s]ome are language specific (e.g., JMX) and require language agnostic bridging mechanisms that must be implemented, configured and maintained. SNMP is generic (e.g., TL1 and SNMP) and very simple in nature, but it requires

application developers to implement solutions to common OSS tasks on top of SNMP. *Id.*, col. 1:46-51.

50. As disclosed in the Patents-in-Suit, “TL1 is also ASCII based and generic. However, while it is very flexible and powerful, it is another language that must be mastered, and it's nature is command line based. As a result, it is not intuitively based in presentation layer tools. While all the technologies have their respective benefits, they do not provide direct means of providing higher level OSS functionality. Conventionally, applications are monitored, analyzed and managed at runtime.” *Id.*, col. 1:52-59.

51. As disclosed in the Patents-in-Suit, one or more claims “provid[e] a high-level operational support system framework comprises monitoring a health of a plurality of applications. The health of the plurality of applications is assessed, and the health of the plurality of applications is analyzed, whereby each of the plurality of applications are managed dynamically at runtime regardless of a platform of each of the plurality of applications.” *Id.*, col. 1:64–2:3.

52. Consequently, the Patents-in-Suit improve the computer functionality itself and represents a technological improvement to the operation of computers.

53. The '809 Patent was examined by United States Patent Examiner Joshua Lohn. During the examination of the '809 Patent, the United States Patent Examiner searched for prior art in the following US Classifications: 714/38, 714/47, 719/320.

54. After conducting a search for prior art during the examination of the '809 Patent, the United States Patent Examiner identified and cited U.S. Patent No. 6,748,555 to Teegan et al as one of the most relevant prior art references found during the search.

55. After conducting a search for prior art during the examination of the '809 Patent, the United States Patent Examiner identified and cited U.S. Patent No. 6,862,698 to Shyu as one of the most relevant prior art references found during the search.
56. After conducting a search for prior art during the examination of the '809 Patent, the United States Patent Examiner identified and cited U.S. Patent No. 7,003,560 to Mullen et al as one of the most relevant prior art references found during the search.
57. After conducting a search for prior art during the examination of the '809 Patent, the United States Patent Examiner identified and cited U.S. Patent No. 7,100,195 to Underwood as one of the most relevant prior art references found during the search.
58. After conducting a search for prior art during the examination of the '809 Patent, the United States Patent Examiner identified and cited U.S. Patent Application No. 2003/0037288 by Harper et al as one of the most relevant prior art references found during the search.
59. After conducting a search for prior art during the examination of the '809 Patent, the United States Patent Examiner identified and cited U.S. Patent Application No. 2003/0204791 by Helgren et al as one of the most relevant prior art references found during the search.
60. After conducting a search for prior art during the examination of the '809 Patent, the United States Patent Examiner identified and cited U.S. Patent Application No. 2004/0073566 by Trivedi as one of the most relevant prior art references found during the search.
61. After conducting a search for prior art during the examination of the '809 Patent, the United States Patent Examiner identified and cited U.S. Patent Application No. 2004/0088401 by Tripathi et al as one of the most relevant prior art references found during the search.

62. After conducting a search for prior art during the examination of the '809 Patent, the United States Patent Examiner identified and cited U.S. Patent Application No. 2005/0044535 by Coppert as one of the most relevant prior art references found during the search.

63. After conducting a search for prior art during the examination of the '809 Patent, the United States Patent Examiner identified and cited U.S. Patent Application No. 6,748,555 by Shyu as one of the most relevant prior art references found during the search.

#### **DEFENDANTS' PRODUCTS**

64. On information and belief, Defendants make, use, import, sell, and/or offer for sale a multitude of products and services broadly defined under the so-called name "Gridstream Connect." On information and belief, Defendants provide Gridstream Connect, an Internet of Things platform comprising of hardware (meters, network nodes, gateways and sensors), software (Gridstream Integration Suite and Command Center), applications (Gridstream Connect apps and custom apps) and IPv6 network, configured by utilities according to their requirements and available infrastructure. It provides utilities with intelligence at endpoint, community and system level and provides solutions such as Meter Data Management System, Customer Information System, Distribution Automation and Load Control. Further, Gridstream Connect provides utilities an App Studio to build custom apps. These applications are installed on endpoints such as network nodes, gateways, meters and sensors to gather data for solutions provided by the utilities.

64. Individually and collectively, the foregoing are the "Accused Instrumentalities."

**COUNT I**  
**(Infringement of U.S. Patent No. 7,890,809)**

65. BCS incorporates the above paragraphs by reference.
66. Defendants have been on notice of the '809 Patent at least as early as the date it received service of this Original Complaint.
67. On information and belief, Defendants have infringed and continue to infringe at least Claims 1-9 of the '809 Patent by making, using, importing, selling, and/or, offering for sale the Accused Instrumentalities.
68. Defendants, with knowledge of the '809 Patent, infringe the '809 Patent by inducing others to infringe the '809 Patent. In particular, Defendants intend to induce their customers to infringe the '809 Patent by encouraging customers to use the Accused Instrumentalities in a manner that results in infringement.

69. On information and belief, to the extent the preamble is limiting, Defendants perform and induce others to perform a method of providing a high-level support framework. For example, Defendants provide Gridstream Connect, an Internet of Things platform comprising of hardware (meters, network nodes, gateways and sensors), software (Gridstream Integration Suite and Command Center), applications (Gridstream Connect apps and custom apps) and IPv6 network, configured by utilities according to their requirements and available infrastructure. It provides utilities with intelligence at endpoint, community and system level and provides solutions such as Meter Data Management System, Customer Information System, Distribution Automation and Load Control. Further, Gridstream Connect provides utilities an App Studio to build custom apps. These applications are installed on endpoints such as network nodes, gateways, meters and sensors to gather data for solutions provided by the utilities.

### BENEFITS OF GRIDSTREAM CONNECT

 <p><b>Open and Secure</b></p> <p>As a Wi-SUN member, we promote open standards-based interoperability. Virtually any device can be seamlessly and securely integrated into our network.</p>	 <p><b>Flexible for an Ever-Changing Future</b></p> <p>Gridstream Connect supports multiple communications technologies, even future technologies, to provide limitless potential for growth.</p>	 <p><b>Extend the Value of Your Assets</b></p> <p>Create a solution tailored to meet your needs and grow with you over time by connecting existing infrastructure with more modern devices.</p>	 <p><b>A Rich Ecosystem for Growth</b></p> <p>The platform ecosystem and partnerships enable utilities to explore new avenues of growth and efficiency and identify new sources for revenue through innovation.</p>
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Source: <https://www.landisgyr.com/solution/gridstream-connect/>

The image is a screenshot of a website advertisement for Landis+Gyr's Gridstream Connect. At the top left is the Landis+Gyr logo with the tagline "manage energy better". To the right are navigation links: "ABOUT LANDIS+GYR", "OUR OFFERING", and "RESOURCES". The main visual is a city skyline at night with a network overlay of icons (Wi-Fi, person, gear) and lines. A green banner contains the text "GRIDSTREAM CONNECT". Below it, the headline reads "The Flexible and Future-Ready Utility IoT Network Communications Platform". A button says "View related products and services" with a downward arrow. Below the image, the text "Your source for solutions" is followed by a paragraph describing the product as a utility IoT networking solution designed for interoperability with current and future technologies, backed by 25 years of experience.

**Landis+Gyr**  
manage energy better

ABOUT LANDIS+GYR   OUR OFFERING   RESOURCES

# GRIDSTREAM CONNECT

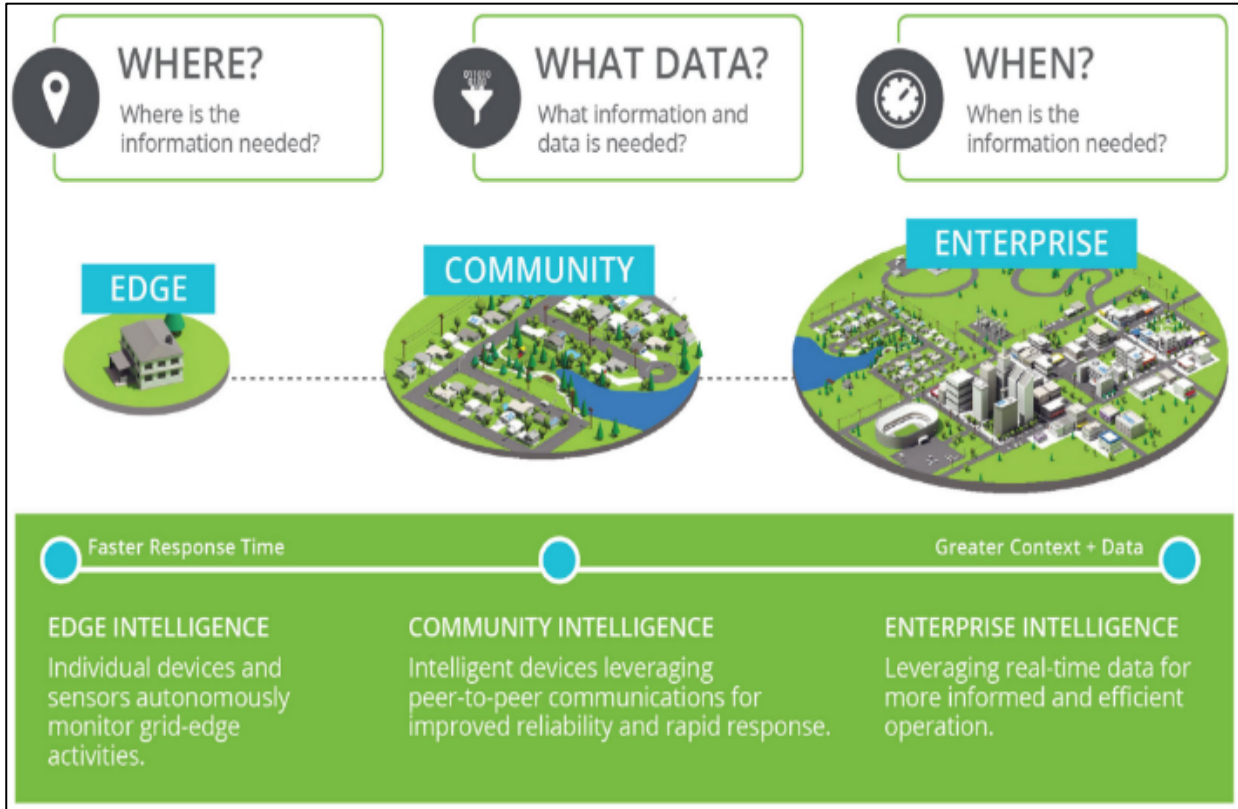
## The Flexible and Future-Ready Utility IoT Network Communications Platform

View related products and services ↓

### Your source for solutions

Gridstream<sup>®</sup> Connect, Landis+Gyr's utility IoT networking solution, is designed to work with today's communications technologies and expand to embrace those of the future. Backed by more than 25 years of proven interoperability experience, Gridstream Connect enables utilities to take advantage of the latest technology advances as soon as they become available.

Source: <https://www.landisgyr.com/solution/gridstream-connect/>



Source: <https://www.landisgyr.com/solution/gridstream-connect/>



## Limitless growth potential

Harness data in new and exciting ways for limitless growth potential. Gridstream Connect Apps provide a fully integrated and open application ecosystem that enables the creation of secure, custom solutions tailored to your unique objectives. Build custom apps in the App Studio or leverage existing apps from the App Marketplace. Gridstream Connect Apps can be installed on a wide variety of intelligent endpoints to gather and integrate edge, field, and system level data to drive customer engagement and future growth for your business.



### App OS

The App OS provides the foundation for custom-developed apps to be incorporated into the Gridstream Connect platform for system-wide access and integration.

### App Studio

The App Studio is a developers' toolkit that makes it easy to build and deploy custom apps on the Gridstream Connect platform. With the App Studio, design and create apps that meet your specific needs, whether internal, field-level or consumer-focused, and roll them out across the Gridstream Connect network.

### App Marketplace

The App Marketplace enables Gridstream Connect partners to offer proven apps developed to support a wide range of specific use-cases, using the App OS and App Studio.

Source: <https://www.landisgyr.com/solution/gridstream-connect/>

Based on its recent analysis of the global advanced metering infrastructure (AMI) market, Frost & Sullivan recognizes Landis+Gyr with the 2019 Global Company of the Year Award for addressing customers' current and evolving needs with its cutting-edge AMI solutions.

Gridstream<sup>®</sup> Connect, Landis+Gyr's next-generation Internet of Things (IoT) platform, is rapidly proving capable of transforming utility operations. It is designed to drive

intelligence to the grid edge, at the community level, and across the distribution system to enable a highly robust approach to layered intelligence and machine decision-making. Gridstream Connect is the only utility IoT networking solution that is integrable with both current and future communications technologies.

"At the core of Gridstream Connect is Landis+Gyr's highly innovative IPv6 multi-technology network architecture that supports communication technologies such as RF Mesh, LoRa, and cellular, all on a single network manager," said Gautham Gnanajothi, global research director. "With a diverse sensor environment, flexible communications capability, and dedicated application enablement, Gridstream Connect is set to propel utilities beyond traditional applications and use cases. On the strength of its comprehensive product portfolio and forward-looking strategies, the company holds the leading shares in the global markets."

In addition to building a strong portfolio, Landis+Gyr has invested in and partnered with emerging technologies focused on expanding grid intelligence. One example is Sense, a technology company that specializes in monitoring and measuring the energy consumed by electrical devices. By leveraging Sense's technology and tying it to the Gridstream Connect IoT platform, Landis+Gyr enhances the value provided to utilities and consumers in terms of improved efficiency, enhanced reliability and security, and thorough demand response.



Source: <https://ww2.frost.com/news/landisgyr-applauded-by-frost-sullivan-for-advancing-utilities-capabilities-with-its-iot-based-gridstream-connect-platform/>

**Gridstream Integration Suite provides utilities with a proven pathway to getting maximum value from the data provided by the Gridstream advanced metering solution.**

010010 MDMS 10111001 GIS 01011101013010011010 CIS/BILLING 010  
011101011 OUTAGE MANAGEMENT SYSTEMS 010100101110101110101  
01 HAN/PEM 01011 DA/SCADA 010001101 BUSINESS INTEL/ANALYTICS  
011101 CONSUMER PORTALS 10101001 WOMS 0110101 PREPAYMENT 1  
010 ASSET MANAGEMENT 101000101 NETWORK MANAGEMENT 11010

The smart grid offers a new level of direct customer engagement in energy efficiency and demand response programs, while equipping utilities to improve reliability and service. This potential can only be realized with an integration platform that supports on-demand, two-way communications, and unlocks new and exciting business applications.

Gridstream Integration Suite, from Landis+Gyr, is the most mature integration platform in the industry today. Part of the modular Gridstream™ software platform, Gridstream Integration Suite brings years of integration experience to the industry. It provides utilities with a collection of packaged interface adapters and advanced web service API's providing connectivity to the most heavily used information systems. These integration components deploy right "out of the box" and begin returning value immediately.

**True Interoperability — Standards in Action**

Gridstream Integration Suite delivers on a commitment to standards progression and true interoperability that is unmatched in this industry. Landis+Gyr is actively involved through memberships, attendance, and influential voting on various standards bodies, but also delivers proven, real-world experience of supporting hundreds of customers that utilize these standards.

The Gridstream Integration Suite, along with the Command Center software platform, has been MultiSpeak® compliant with our vendor partners for over five years. In addition, Landis+Gyr has embraced a global commitment to IEC 61968 (CIM) interoperability. During the first interoperability test performed against the IEC CIM 61968-9 standards in early 2010, Landis+Gyr was the only advanced metering vendor to test the head-end software platform, utilizing the Gridstream Integration Suite, and pass the required functionality.



Gridstream Integration Suite uses standards-based interfaces that have been tested to work right out of the box.

Source: [https://www.landisgyr.com/webfoo/wp-content/uploads/2012/12/GSISBrochure\\_lr.pdf](https://www.landisgyr.com/webfoo/wp-content/uploads/2012/12/GSISBrochure_lr.pdf), Page 2

### Packaged Integration Solutions

Landis+Gyr offers solutions to fit the varying information and connectivity needs of utilities. Gridstream Integration Suite includes adapters that provide immediate benefits across all areas:

- Meter Data Management Systems (MDMS)
- Customer Information Systems (CIS) and Billing
- Business Intelligence and Analytics
- Outage Management Systems
- Geographical Information Systems (GIS)
- Home Area Network (HAN)
- Network Management Module
- Prepayment
- Distribution Automation and SCADA
- Load Control
- Enhanced Security
- Consumer Presentment
- Work Order Management System (WOMS)
- Asset Management
- IP and C12.22



Source: [https://www.landisgyr.com/webfoo/wp-content/uploads/2012/12/GSISBrochure\\_1r.pdf](https://www.landisgyr.com/webfoo/wp-content/uploads/2012/12/GSISBrochure_1r.pdf), Page 3



### SmartData Connect

SmartData Connect™ is a customer engagement platform that transforms meter data into an easy to use resource for both consumers and utility personnel. It is a secure and flexible portal, integrated (standards-based) with the Gridstream® Command Center head end as well...



### SmartData for Outage Management

The number one task of a utility is to provide a much-needed commodity without interruption. So when an outage occurs, the affected world practically stops, and returning to normal requires a more effective use of information; It is available through...



### Core MDMS

A finely tuned database repository stores all customer and meter metadata. In addition, the usage and diagnostic data provides the foundation for the analytics and business processes within the Core and SmartData Applications.

Source: <https://www.landisgyr.com/solution/meter-data-management/>

**Overview**

Command Center™ software is the gateway for all Gridstream® metering technologies and the control point for grid management network sensors. It's the critical link for opening access to valuable data for utility systems and directing actions which occur within the distributed intelligence residing at the network's edge.

Command Center brings data from any communication technology—including RF Mesh, PLC and Cellular; and for any commodity such as electricity, natural gas and water—into a single application. Command Center's innovative platform is designed for growth and extensibility to ensure a future ready solution for our customers.

**Operations Support**

Command Center intelligence performs functions including:

- Remote endpoint programming
- Time-of-use period and rate configuration
- Basic validation and exception management
- Billing extract generation
- Remote disconnect management
- Critical peak usage analysis
- Load control index creation.

**Operational processes supported includes:**

- Billing support and exception reports
- On-demand device command and control
- System mapping and real-time awareness
- Network Management analytics and statistics
- Demand response management of devices
- Voltage monitoring

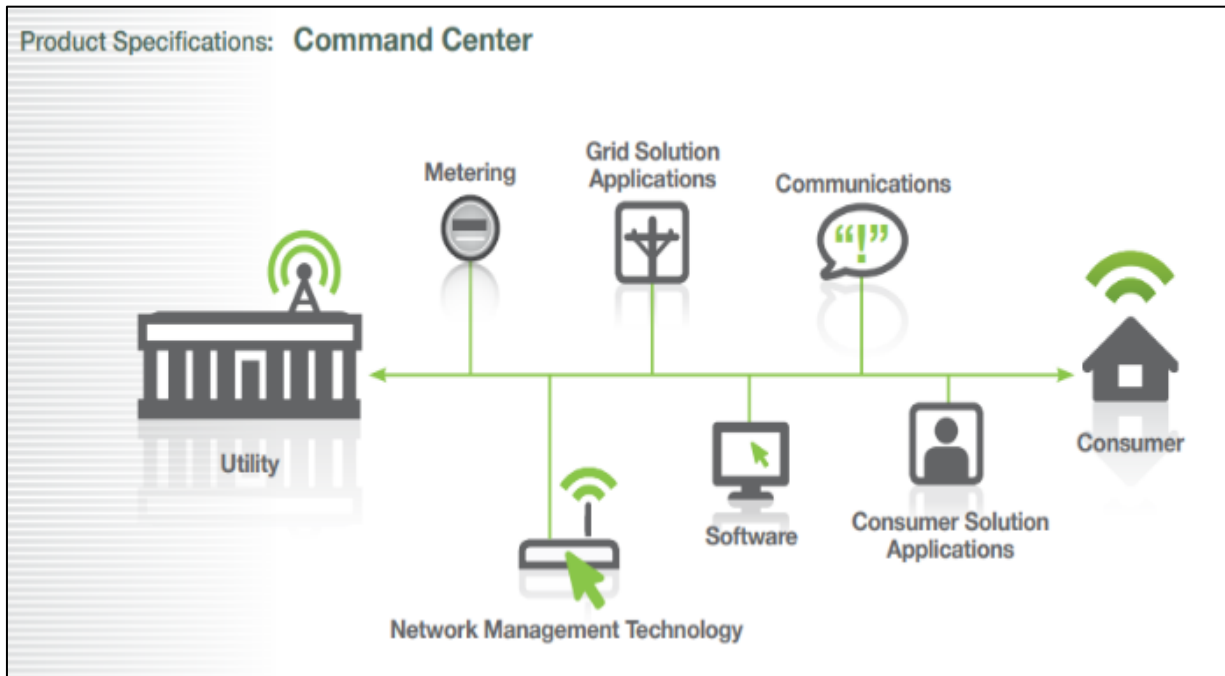
**FEATURES & BENEFITS:**  
*Why Landis+Gyr makes a difference.*

- Robust management of the AMI system
- Network Management analytics and statistics
- Validation, storage and presentation of collected data
- Seamless integration to other utility applications
- Monitoring and alerting of standard and -user-configurable conditions
- In-depth analysis and reporting

**Innovative, Flexible & Secure**

- Modular Software Architecture & deployment
- Market-leading security implementation
- Proven scalability to support the world's largest utilities
- Integration based on Service Oriented Architecture

Source: [https://www.landisgyr.com/webfoo/wp-ntent/uploads/2012/12/PS\\_CommandCenter.pdf](https://www.landisgyr.com/webfoo/wp-ntent/uploads/2012/12/PS_CommandCenter.pdf),  
Page 1



Source: [https://www.landisgyr.com/webfoo/wp-content/uploads/2012/12/PS\\_CommandCenter.pdf](https://www.landisgyr.com/webfoo/wp-content/uploads/2012/12/PS_CommandCenter.pdf), Page 2



Source: <https://www.landisgyr.eu/devices/?product-cat=0&product-region=603&product-country=7&keyword=#filter>

70. On information and belief, Defendants perform and induce others to perform the step of monitoring from a physical server a health of a plurality of client applications and a health of said plurality of client applications distributed components, using a common monitoring protocol, said monitoring being independent of a programming technology of said plurality of client applications and respective distributed components. This element is infringed literally, or in the alternative, under the doctrine of equivalents. For example, Gridstream



Connect provides utilities an App Studio to build custom apps. These applications are installed on endpoints (“distributed components”) such as network nodes, gateways, meters and sensors to gather data for solutions provided by the utilities. The health of applications (such as Activation Status, Application ID) and health of corresponding distributed components (such as device and sensor status, Sensor ID, voltage and current levels) is monitored using Gridstream Connect (“common monitoring protocol”). Further, the custom applications are designed by utilities in different programming languages using App Studio. Upon information and belief, the monitoring is independent of a programming technology of said plurality of client applications and respective distributed components.

## Limitless growth potential

Harness data in new and exciting ways for limitless growth potential. Gridstream Connect Apps provide a fully integrated and open application ecosystem that enables the creation of secure, custom solutions tailored to your unique objectives. Build custom apps in the App Studio or leverage existing apps from the App Marketplace. Gridstream Connect Apps can be installed on a wide variety of intelligent endpoints to gather and integrate edge, field, and system level data to drive customer engagement and future growth for your business.

Source: <https://www.landisgyr.com/solution/gridstream-connect/>

## Landis+Gyr and MicroEJ Launch Custom Energy Apps Platform at CES

**Posted on:** 14 January 2019 **By:** chw staff

At CES this year Landis+Gyr partnership with MicroEJ introduced Gridstream Connect Apps as a part of the Gridstream Connect IoT solution portfolio. The Gridstream Connect Apps is already in the market where it helps utilities to offer meter-based flexible billing, demand management used for billing and load management, along with apps that convert a smart meter into a distribution system sensor.

According to Landis+Gyr the solution was designed to support grid-edge applications that require distributed intelligence and remote decision making. It also includes support for creating custom utility applications through the Gridstream Connect App Studio.

"Many of our customers have first-hand experience with the value these apps bring to their existing technology deployments. Our goal is to make it easier for developers and utilities to create, upload and run apps on their devices," said John Radgowski, Vice President of Portfolio Management at Landis+Gyr. "Over time, utilities will be able to access and share apps through the App Marketplace to take advantage of new ways to best utilize technology for energy management."

Source: <https://www.connectedhomeworld.com/content/landisgyr-and-microej-launch-custom-energy-apps-platform-ces>

Part of the cost savings comes from decoupling hardware innovations and app innovations. VEE creates safe harbors for apps by protecting the various components of a device. "You can write an app and then deploy it without putting the other parts of your system in danger," Rivard says.

Plus, connectivity makes it easy to roll out an app – or share it, as well. Landis+Gyr is one of many companies partnered with MicroEJ to promote and support the creation of new energy management apps for both utilities and consumers. MicroEJ functionality is built into the Gridstream Connect App Studio and Gridstream Connect App Marketplace.

Ahead, Radgowski sees a day when utility engineers can download apps that power grid-edge devices as easily as kids download Candy Crush. Likewise, utility marketers will have several app options to offer consumers.

"Over time, utilities will be able to access and share apps through the App Marketplace to take advantage of new ways to best utilize technology for energy management," Radgowski says. "Many of our customers have first-hand experience with the value these apps bring to their existing technology deployments. Our goal is to make it easier for developers and utilities to create, upload and run apps on their devices."

Source: <https://www.landisgyr.com/ezine-article/pushing-smartsto-the-edge-tap-an-app/>

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### App OS

The App OS provides the foundation for custom-developed apps to be incorporated into the Gridstream Connect platform for system-wide access and integration.

### App Studio

The App Studio is a developers' toolkit that makes it easy to build and deploy custom apps on the Gridstream Connect platform. With the App Studio, design and create apps that meet your specific needs, whether internal, field-level or consumer-focused, and roll them out across the Gridstream Connect network.

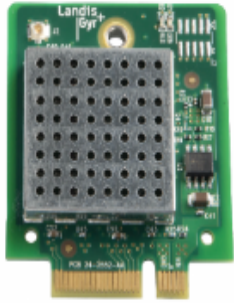
### App Marketplace

The App Marketplace enables Gridstream Connect partners to offer proven apps developed to support a wide range of specific use-cases, using the App OS and App Studio.

Source: <https://www.landisgyr.com/solution/gridstream-connect/>



Source: <https://www.landisgyr.eu/devices/?product-cat=0&product-region=603&product-country=7&keyword=#filter>



**COMMUNICATION NETWORKS**

## N500/N550 Network Node

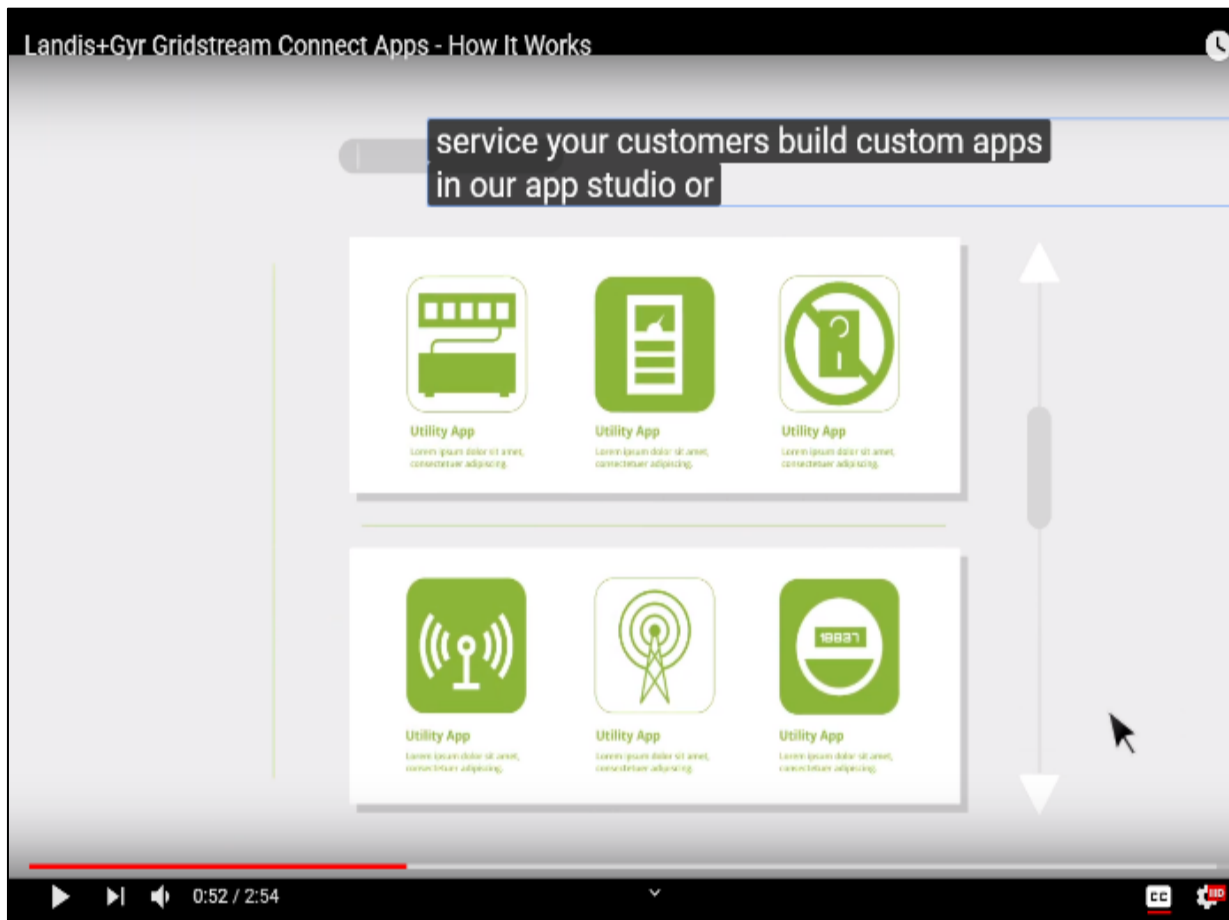
Landis+Gyr's Network Node is key to building a single, integrated IoT network. The Network Node is a fully-functional, tiny RF radio module—approximately 1.5" x 1.5"—that enables simple network device integration. You can quickly and seamlessly connect any device, from any... [Read more](#)

[View features](#) [Contact Us](#)

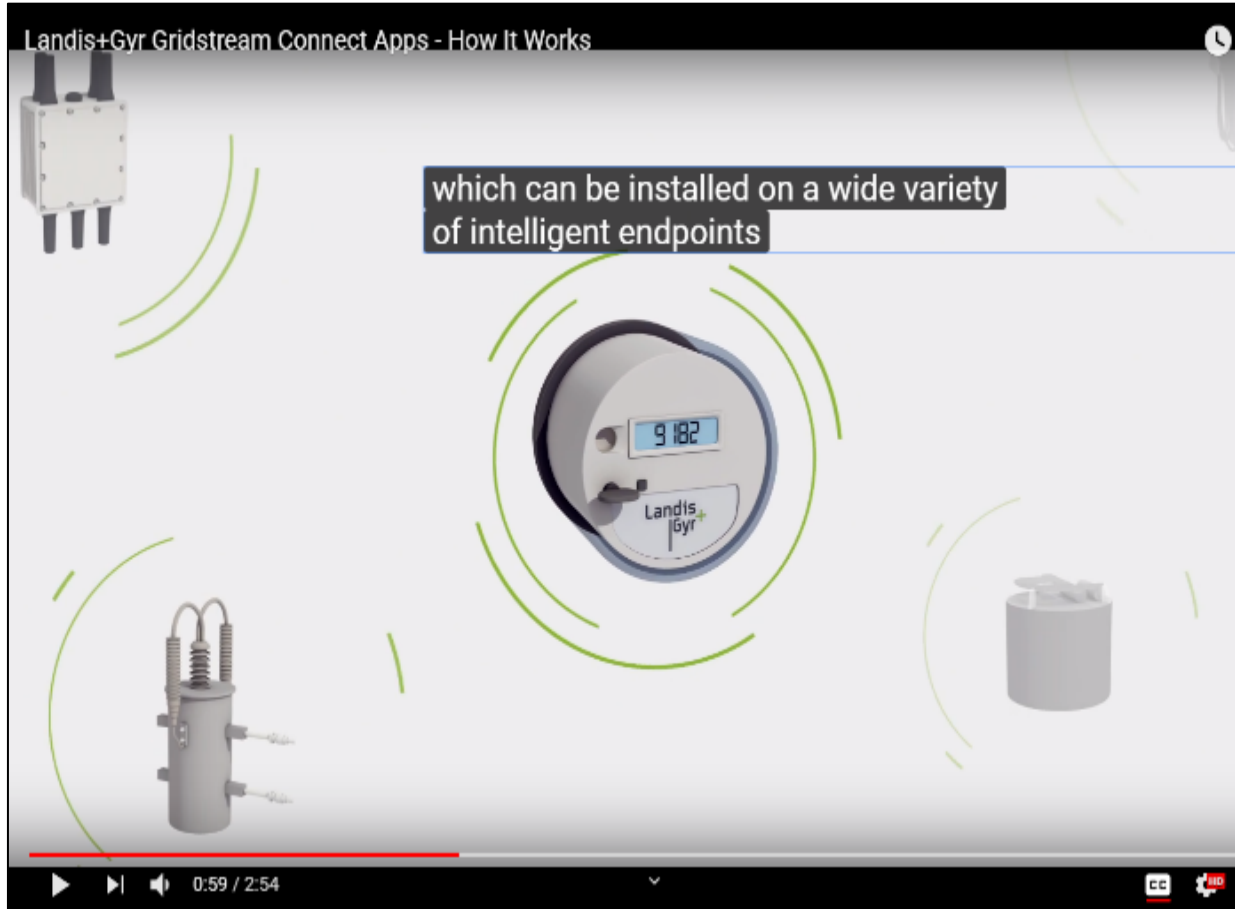
Source: <https://www.landisgyr.com/product/network-node/>

FEATURES	VARIATIONS	AVAILABILITY
<b>Easy Integration with IoT Devices</b>	<b>N500</b> – RF Mesh	Americas
<ul style="list-style-type: none"><li>• Small size allows for seamless integration into sensor modules</li><li>• Configurable output power</li><li>• “Plug and play” design</li></ul>	<b>N550</b> – RF Mesh IP	
<b>Leverage and Extend Your Existing Network</b>		
<ul style="list-style-type: none"><li>• Compact 900MHz radio</li><li>• Designed to support open standards-based communications technologies</li></ul>		
<b>Edge Intelligence Platform</b>		
<ul style="list-style-type: none"><li>• On-board microprocessor</li><li>• <b>Device supports application development</b></li><li>• Facilitates growth of utility and consumer-focused use cases</li></ul>		

Source: <https://www.landisgyr.com/product/network-node/>



Source: [https://www.youtube.com/watch?time\\_continue=52&v=wY5G734Y-oM&feature=emb\\_logo](https://www.youtube.com/watch?time_continue=52&v=wY5G734Y-oM&feature=emb_logo)



Source: [https://www.youtube.com/watch?time\\_continue=52&v=wY5G734Y-oM&feature=emb\\_logo](https://www.youtube.com/watch?time_continue=52&v=wY5G734Y-oM&feature=emb_logo)


71. On information and belief, Defendants perform and induce others to perform the step of assessing said health of said plurality of client applications and said respective distributed components. This element is infringed literally, or in the alternative, under the doctrine of equivalents. For example, Gridstream Connect assesses health of custom applications designed by utilities and corresponding endpoints (“distributed components”) such as meters, sensors and network nodes on which these apps are installed. The health value of applications comprises of values such as Application ID and Activation status of particular application. Further, health of corresponding distributed components comprises of device



and sensor status, Sensor ID, voltage and current levels.

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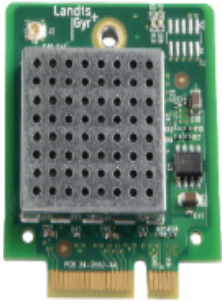
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Source: <https://www.landisgyr.com/solution/gridstream-connect/>



Source: <https://www.landisgyr.eu/devices/?product-cat=0&product-region=603&product-country=7&keyword=#filter>



**COMMUNICATION NETWORKS**

## N500/N550 Network Node

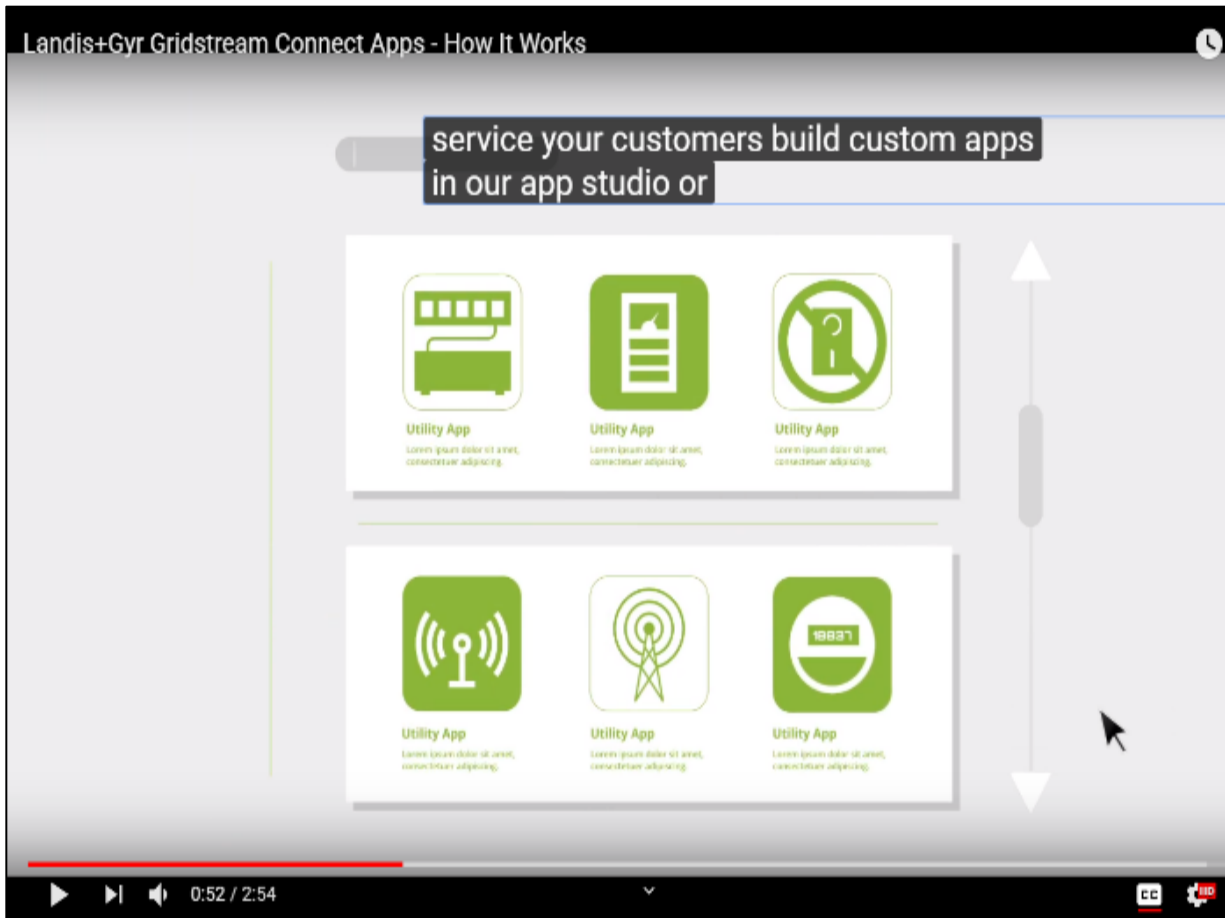
Landis+Gyr's Network Node is key to building a single, integrated IoT network. The Network Node is a fully-functional, tiny RF radio module—approximately 1.5" x 1.5"—that enables simple network device integration. You can quickly and seamlessly connect any device, from any... [Read more](#)

[View features](#) [Contact Us](#)

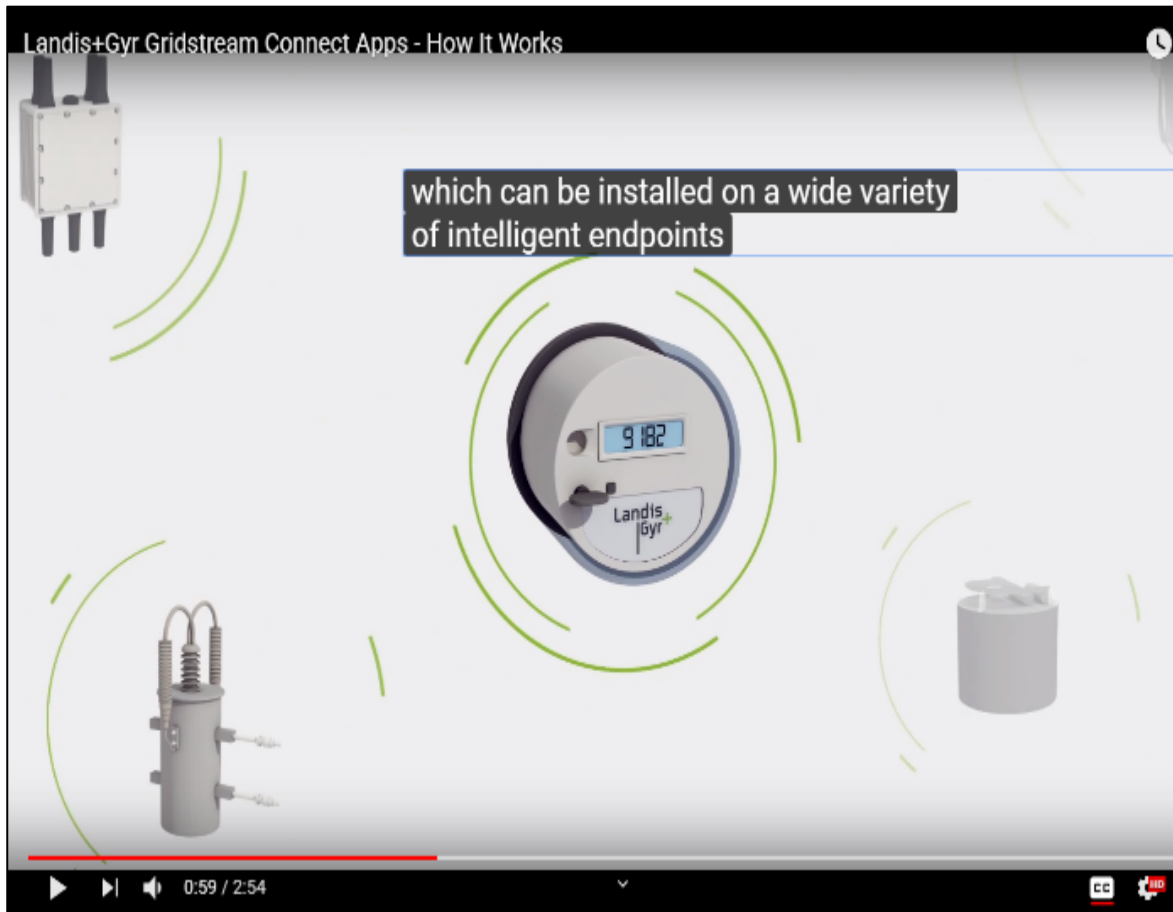
Source: <https://www.landisgyr.com/product/network-node/>

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Source: <https://www.landisgyr.com/product/network-node/>



Source: [https://www.youtube.com/watch?time\\_continue=52&v=wY5G734Y-oM&feature=emb\\_logo](https://www.youtube.com/watch?time_continue=52&v=wY5G734Y-oM&feature=emb_logo)



Source: [https://www.youtube.com/watch?time\\_continue=52&v=wY5G734Y-oM&feature=emb\\_logo](https://www.youtube.com/watch?time_continue=52&v=wY5G734Y-oM&feature=emb_logo)



Source: [https://www.youtube.com/watch?time\\_continue=52&v=wY5G734Y-oM&feature=emb\\_logo](https://www.youtube.com/watch?time_continue=52&v=wY5G734Y-oM&feature=emb_logo)

72. On information and belief, Defendants perform and induce others to perform the step of associating said health of said plurality of client applications and said respective distributed components as belonging to a single application node. This element is infringed literally, or in the alternative, under the doctrine of equivalents. For example, Gridstream Connect analyses all the collected data from sensors, meters and Advanced Metered Infrastructure (AMI). The health of the custom applications designed by utilities and its corresponding

distributed components (meters, sensors and network nodes) is displayed on the Gridstream Connect Command Center (“application node”). Command Center brings data from communication infrastructure including RF Mesh, PLC and Cellular and provides endpoint programming, load control and consumer management in a single application.

The image shows a screenshot of the Gridstream Command Center software interface on the left and a promotional graphic on the right. The interface includes a navigation menu with options like 'Home', 'Network', 'Customers', 'Billing', and 'Help'. A central pie chart displays 'Energy Meter Types' with a legend for 'RF Mesh', 'PLC', and 'Cellular'. Below the chart are various data tables and filters. The promotional graphic on the right features the 'GRIDSTREAM SOFTWARE' logo, the title 'Command Center', a descriptive paragraph, and two buttons: 'View features' and 'Contact Us'.

**GRIDSTREAM SOFTWARE**

# Command Center

Command Center is the browser-based operating software for Gridstream RF and PLC networks. It installs seamlessly, or can run on hosted servers, and provides a secure platform for data and system management throughout the utility. Reports are tailored for use by... [Read more](#)

[View features](#) [Contact Us](#)

**Description:**

Command Center is the browser-based operating software for Gridstream RF and PLC networks. It installs seamlessly, or can run on hosted servers, and provides a secure platform for data and system management throughout the utility. Reports are tailored for use by billing, finance, customer service, operations, distribution planning and engineering departments. Multiple integration partners and cross-platform functionality ensure Command Center will integrate into the entire business.

Source: <https://www.landisgyr.com/product/command-center/>

*Network Management for Today's Utility – Gateway to the Smart Grid*

## Overview

Command Center™ software is the gateway for all Gridstream® metering technologies and the control point for grid management network sensors. It's the critical link for opening access to valuable data for utility systems and directing actions which occur within the distributed intelligence residing at the network's edge.

Command Center brings data from any communication technology—including RF Mesh, PLC and Cellular; and for any commodity such as electricity, natural gas and water—into a single application. Command Center's innovative platform is designed for growth and extensibility to ensure a future ready solution for our customers.

### Operations Support

Command Center intelligence performs functions including:

- Remote endpoint programming
- Time-of-use period and rate configuration
- Basic validation and exception management
- Billing extract generation
- Remote disconnect management
- Critical peak usage analysis
- Load control index creation.

### Operational processes supported includes:

- Billing support and exception reports
- On-demand device command and control
- System mapping and real-time awareness
- Network Management analytics and statistics
- Demand response management of devices
- Voltage monitoring

### FEATURES & BENEFITS:

*Why Landis+Gyr makes a difference.*

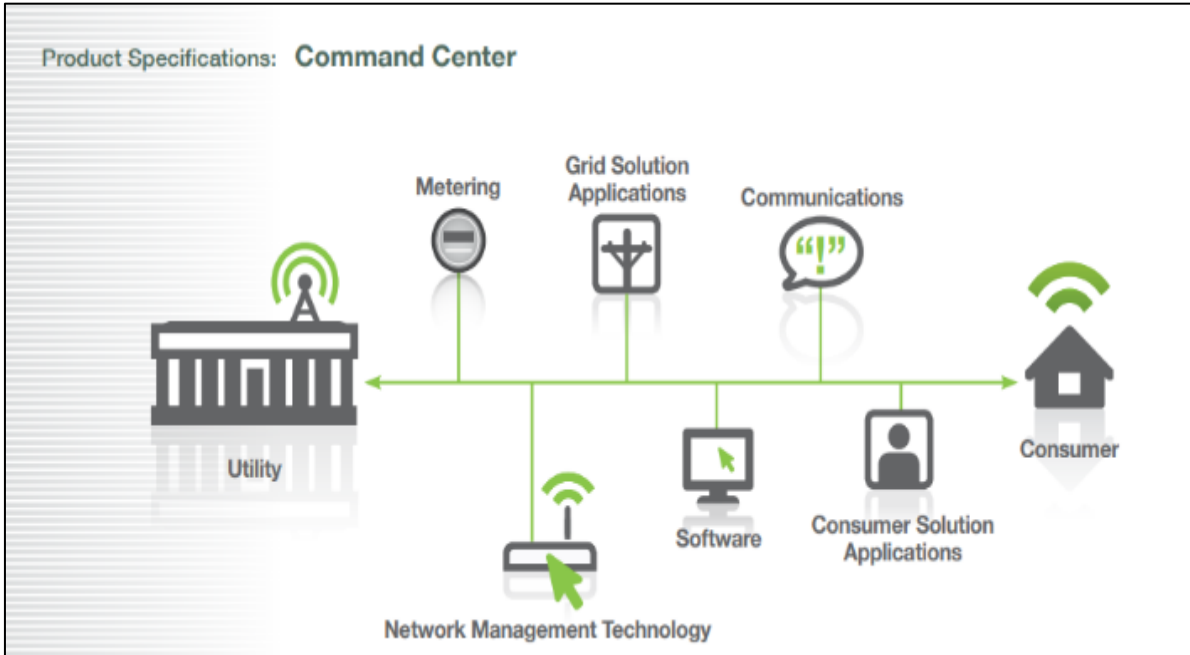
- Robust management of the AMI system
- Network Management analytics and statistics
- Validation, storage and presentation of collected data
- Seamless integration to other utility applications
- Monitoring and alerting of standard and -user-configurable conditions
- In-depth analysis and reporting

### Innovative, Flexible & Secure

- Modular Software Architecture & deployment
- Market-leading security implementation
- Proven scalability to support the world's largest utilities
- Integration based on Service Oriented Architecture

Source:[https://www.landisgyr.com/webfoo/wp-content/uploads/2012/12/PS\\_CommandCenter.pdf](https://www.landisgyr.com/webfoo/wp-content/uploads/2012/12/PS_CommandCenter.pdf)





Source: [https://www.landisgyr.com/webfoo/wp-content/uploads/2012/12/PS\\_CommandCenter.pdf](https://www.landisgyr.com/webfoo/wp-content/uploads/2012/12/PS_CommandCenter.pdf)

<p><b>Platform Integration and Standards Leadership</b></p> <p>As a MultiSpeak® and IEC 61968-9 (CIM) compliant solution, Command Center provides unparalleled integration capabilities.</p> <p>Command Center's standards-based design, combined with an extensive Web Service library of more than 100 pre-built interfaces, makes it ready to use right from the start. The fact is Landis+Gyr's proven integration solutions empower hundreds of utilities to integrate their advanced metering and grid management solutions with back-office applications. And with unparalleled industry-leading vendor partnerships and dedicated integration teams, Landis+Gyr provides the key to integration success.</p> <p>In addition to real-time application interfaces, Command Center delivers pre-built, yet flexible data extracts, in formats readily supported by adjacent systems. Every byte of processed data is available for use.</p> <p>Fully integrated with Gridstream MDMS, and interoperable with systems including billing, customer service, engineering analysis, outage management, demand response, load management and field service applications, Command Center enhances productivity and delivers unmatched energy resource management and collaboration.</p>	<p><b>System Requirements</b></p> <p>Command Center is engineered to simultaneously process and validate meter readings for millions of devices quickly and efficiently. It can be configured as a stand-alone solution on a single server platform or scaled to a multiple-server platform. In addition, it can operate in either a Microsoft or Unix environment supporting a Microsoft SQL or Oracle database platform. Command Center hosting and management is also offered as a service with Landis+Gyr Cloud Services.</p> <p><b>Landis+Gyr Smart Grid Services and Customer Support</b></p> <p>When you partner with Landis+Gyr and deploy an AML system powered by Command Center, you'll have access to support and services expertise unequalled in the industry. You can rely on our technical support 24/7/365 with each Command Center installation. The Landis+Gyr Smart Grid Services team delivers unrivaled expertise and leverages decades of in-the-field experience to maximize the value of your investment and ensure business objectives are met.</p>	<p><b>NETWORK MONITORING AND MANAGEMENT FEATURES</b></p> <ul style="list-style-type: none"> <li>■ Administrative Dashboards</li> <li>■ Exception Reporting</li> <li>■ Reading Collection Statistics</li> <li>■ Mapping</li> <li>■ Network Management <ul style="list-style-type: none"> <li>• Message Communication Statistics</li> <li>• Device Latency Statistics</li> <li>• Collector Capacity</li> </ul> </li> <li>■ Command, Error and Event tracking and reporting</li> <li>■ Interfaces available for data delivery to industry network monitoring systems</li> </ul>
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Source: [https://www.landisgyr.com/webfoo/wp-content/uploads/2012/12/PS\\_CommandCenter.pdf](https://www.landisgyr.com/webfoo/wp-content/uploads/2012/12/PS_CommandCenter.pdf)


73. BCS has been damaged by Defendants' infringement of the '809 Patent.

**COUNT II**  
**(Infringement of U.S. Patent No. 7,302,612)**

74. BCS incorporates the above paragraphs by reference.
75. Defendants have been on notice of the '612 Patent at least as early as the date it received service of this Original Complaint.
76. On information and belief, Defendants have infringed and continue to infringe Claims 1-20 of the '612 Patent by making, using, importing, selling, and/or, offering for sale the Accused Instrumentalities.
77. On information and belief, Defendants, with knowledge of the '612 Patent, infringe the '612 Patent by inducing others to infringe the '612 Patent. In particular, Defendants intend to induce customers to infringe the '612 Patent by encouraging customers to use the Accused Instrumentalities in a manner that results in infringement.
78. On information and belief, Defendants also induce others, including its customers, to infringe the '612 Patent by providing technical support for the use of the Accused Instrumentalities.
79. On information and belief, at all times Defendants own and control the operation of the Accused Instrumentalities in accordance with an end user license agreement.
80. On information and belief, the Accused Instrumentalities infringe Claim 1 of the '612 Patent by providing a method of providing a high-level operational support system framework by monitoring a health of a plurality of applications using a common monitoring protocol, at least two of the plurality of applications being based on different programming technology.

81. On information and belief, to the extent the preamble is limiting, Defendants perform and induce others to perform a method of providing a high-level operational support system (OSS) framework. For example, Defendants provide Gridstream Connect, an Internet of Things platform comprising of hardware (meters, network nodes, gateways and sensors), software (Gridstream Integration Suite and Command Center), applications (Gridstream Connect apps and custom apps) and IPv6 network, configured by utilities according to their requirements and available infrastructure. It provides utilities with intelligence at endpoint, community and system level and provides solutions such as Meter Data Management System, Customer Information System, Distribution Automation and Load Control. Further, Gridstream Connect provides utilities an App Studio to build custom apps. These applications are installed on endpoints such as network nodes, gateways, meters and sensors to gather data for solutions provided by the utilities.

## BENEFITS OF GRIDSTREAM CONNECT

 <p><b>Open and Secure</b></p> <p>As a WI-SUN member, we promote open standards-based interoperability. Virtually any device can be seamlessly and securely integrated into our network.</p>	 <p><b>Flexible for an Ever-Changing Future</b></p> <p>Gridstream Connect supports multiple communications technologies, even future technologies, to provide limitless potential for growth.</p>	 <p><b>Extend the Value of Your Assets</b></p> <p>Create a solution tailored to meet your needs and grow with you over time by connecting existing infrastructure with more modern devices.</p>	 <p><b>A Rich Ecosystem for Growth</b></p> <p>The platform ecosystem and partnerships enable utilities to explore new avenues of growth and efficiency and identify new sources for revenue through innovation.</p>
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Source: <https://www.landisgyr.com/solution/gridstream-connect/>

**Landis+Gyr**  
manage energy better

ABOUT LANDIS+GYR    OUR OFFERING    RESOURCES

# GRIDSTREAM CONNECT

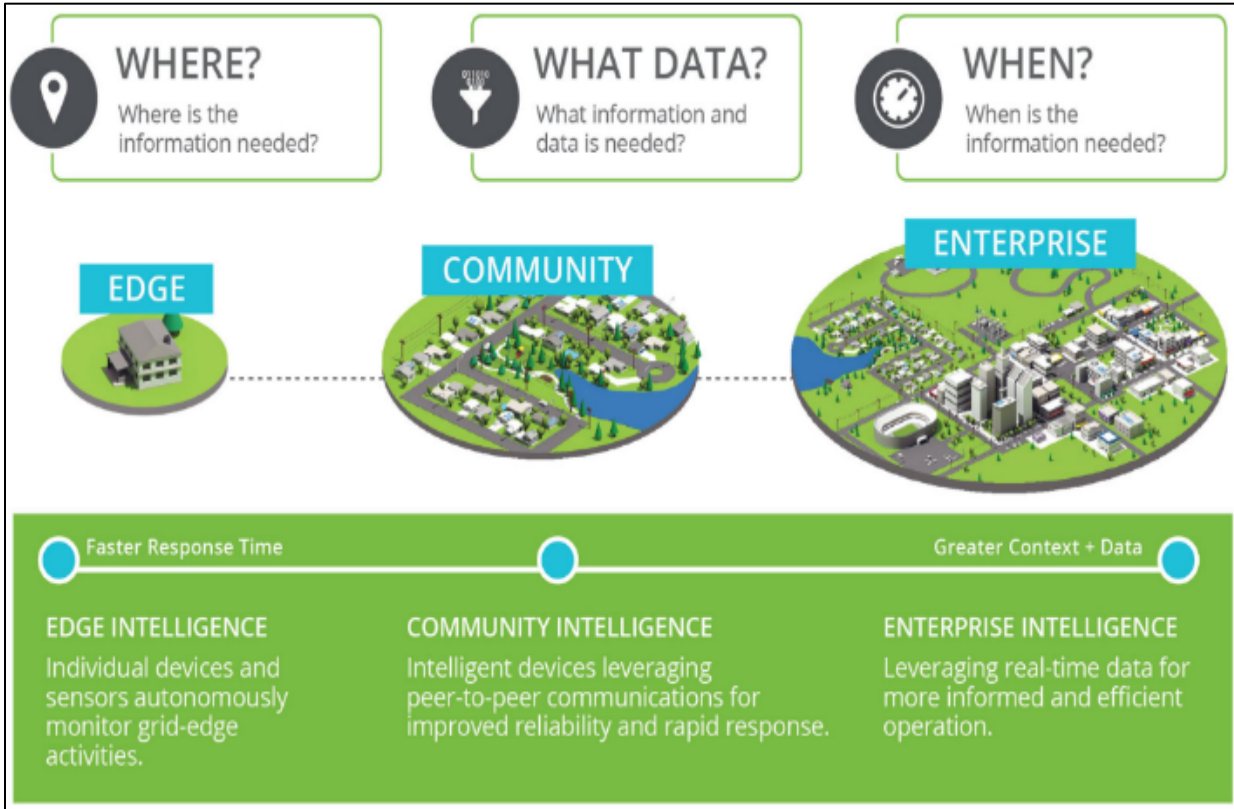
## The Flexible and Future-Ready Utility IoT Network Communications Platform

[View related products and services](#) ↓

### Your source for solutions

Gridstream<sup>®</sup> Connect. Landis+Gyr's utility IoT networking solution. is designed to work with today's communications technologies and expand to embrace those of the future. Backed by more than 25 years of proven interoperability experience, Gridstream Connect enables utilities to take advantage of the latest technology advances as soon as they become available.

Source: <https://www.landisgyr.com/solution/gridstream-connect/>



Source: <https://www.landisgyr.com/solution/gridstream-connect/>

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### App Marketplace

The App Marketplace enables Gridstream Connect partners to offer proven apps developed to support a wide range of specific use-cases, using the App OS and App Studio.

Source: <https://www.landisgyr.com/solution/gridstream-connect/>

Based on its recent analysis of the global advanced metering infrastructure (AMI) market, Frost & Sullivan recognizes Landis+Gyr with the 2019 Global Company of the Year Award for addressing customers' current and evolving needs with its cutting-edge AMI solutions. Gridstream<sup>®</sup> Connect, Landis+Gyr's next-generation Internet of Things (IoT) platform, is rapidly proving capable of transforming utility operations. It is designed to drive

intelligence to the grid edge, at the community level, and across the distribution system to enable a highly robust approach to layered intelligence and machine decision-making. Gridstream Connect is the only utility IoT networking solution that is integrable with both current and future communications technologies.

"At the core of Gridstream Connect is Landis+Gyr's highly innovative IPv6 multi-technology network architecture that supports communication technologies such as RF Mesh, LoRa, and cellular, all on a single network manager," said Gautham Gnanajothi, global research director. "With a diverse sensor environment, flexible communications capability, and dedicated application enablement, Gridstream Connect is set to propel utilities beyond traditional applications and use cases. On the strength of its comprehensive product portfolio and forward-looking strategies, the company holds the leading shares in the global markets."

In addition to building a strong portfolio, Landis+Gyr has invested in and partnered with emerging technologies focused on expanding grid intelligence. One example is Sense, a technology company that specializes in monitoring and measuring the energy consumed by electrical devices. By leveraging Sense's technology and tying it to the Gridstream Connect IoT platform, Landis+Gyr enhances the value provided to utilities and consumers in terms of improved efficiency, enhanced reliability and security, and thorough demand response.



Source: <https://ww2.frost.com/news/landisgyr-applauded-by-frost-sullivan-for-advancing-utilities-capabilities-with-its-iot-based-gridstream-connect-platform/>



**Gridstream Integration Suite provides utilities with a proven pathway to getting maximum value from the data provided by the Gridstream advanced metering solution.**

010010 MDMS 10111001 GIS 01011101013010011010 CIS/BILLING 010  
011101011 OUTAGE MANAGEMENT SYSTEMS 01010010110101110101  
01 HAN/PEM 01011 DA/SCADA 010001101 BUSINESS INTEL/ANALYTICS  
011101 CONSUMER PORTALS 10101001 WOMS 0110101 PREPAYMENT 1  
010 ASSET MANAGEMENT 101000101 NETWORK MANAGEMENT 11010

The smart grid offers a new level of direct customer engagement in energy efficiency and demand response programs, while equipping utilities to improve reliability and service. This potential can only be realized with an integration platform that supports on-demand, two-way communications, and unlocks new and exciting business applications.

Gridstream Integration Suite, from Landis+Gyr, is the most mature integration platform in the industry today. Part of the modular Gridstream™ software platform, Gridstream Integration Suite brings years of integration experience to the industry. It provides utilities with a collection of packaged interface adapters and advanced web service APIs providing connectivity to the most heavily used information systems. These integration components deploy right "out of the box" and begin returning value immediately.

**True Interoperability — Standards in Action**

Gridstream Integration Suite delivers on a commitment to standards progression and true interoperability that is unmatched in this industry. Landis+Gyr is actively involved through memberships, attendance, and influential voting on various standards bodies, but also delivers proven, real-world experience of supporting hundreds of customers that utilize these standards.

The Gridstream Integration Suite, along with the Command Center software platform, has been MultiSpeak® compliant with our vendor partners for over five years. In addition, Landis+Gyr has embraced a global commitment to IEC 61968 (CIM) interoperability. During the first interoperability test performed against the IEC CIM 61968-9 standards in early 2010, Landis+Gyr was the only advanced metering vendor to test the head-end software platform, utilizing the Gridstream Integration Suite, and pass the required functionality.



Gridstream Integration Suite uses standards-based interfaces that have been tested to work right out of the box.

Source: [https://www.landisgyr.com/webfoo/wp-content/uploads/2012/12/GSISBrochure\\_lr.pdf](https://www.landisgyr.com/webfoo/wp-content/uploads/2012/12/GSISBrochure_lr.pdf), Page 2



### Packaged Integration Solutions

Landis+Gyr offers solutions to fit the varying information and connectivity needs of utilities. Gridstream Integration Suite includes adapters that provide immediate benefits across all areas:

- Meter Data Management Systems (MDMS)
- Customer Information Systems (CIS) and Billing
- Business Intelligence and Analytics
- Outage Management Systems
- Geographical Information Systems (GIS)
- Home Area Network (HAN)
- Network Management Module
- Prepayment
- Distribution Automation and SCADA
- Load Control
- Enhanced Security
- Consumer Presentment
- Work Order Management System (WOMS)
- Asset Management
- IP and C12.22



Source: [https://www.landisgyr.com/webfoo/wp-content/uploads/2012/12/GSISBrochure\\_lr.pdf](https://www.landisgyr.com/webfoo/wp-content/uploads/2012/12/GSISBrochure_lr.pdf), Page 3

		
<p><b>SmartData Connect</b></p> <p>SmartData Connect™ is a customer engagement platform that transforms meter data into an easy to use resource for both consumers and utility personnel. It is a secure and flexible portal, integrated (standards-based) with the Gridstream® Command Center head end as well...</p>	<p><b>SmartData for Outage Management</b></p> <p>The number one task of a utility is to provide a much-needed commodity without interruption. So when an outage occurs, the affected world practically stops, and returning to normal requires a more effective use of information; it is available through...</p>	<p><b>Core MDMS</b></p> <p>A finely tuned database repository stores all customer and meter metadata. In addition, the usage and diagnostic data provides the foundation for the analytics and business processes within the Core and SmartData Applications.</p>

Source: <https://www.landisgyr.com/solution/meter-data-management/>

## Overview

Command Center™ software is the gateway for all Gridstream® metering technologies and the control point for grid management network sensors. It's the critical link for opening access to valuable data for utility systems and directing actions which occur within the distributed intelligence residing at the network's edge.

Command Center brings data from any communication technology—including RF Mesh, PLC and Cellular; and for any commodity such as electricity, natural gas and water—into a single application. Command Center's innovative platform is designed for growth and extensibility to ensure a future ready solution for our customers.

### Operations Support

Command Center intelligence performs functions including:

- Remote endpoint programming
- Time-of-use period and rate configuration
- Basic validation and exception management
- Billing extract generation
- Remote disconnect management
- Critical peak usage analysis
- Load control index creation.

### Operational processes supported includes:

- Billing support and exception reports
- On-demand device command and control
- System mapping and real-time awareness
- Network Management analytics and statistics
- Demand response management of devices
- Voltage monitoring

### FEATURES & BENEFITS:

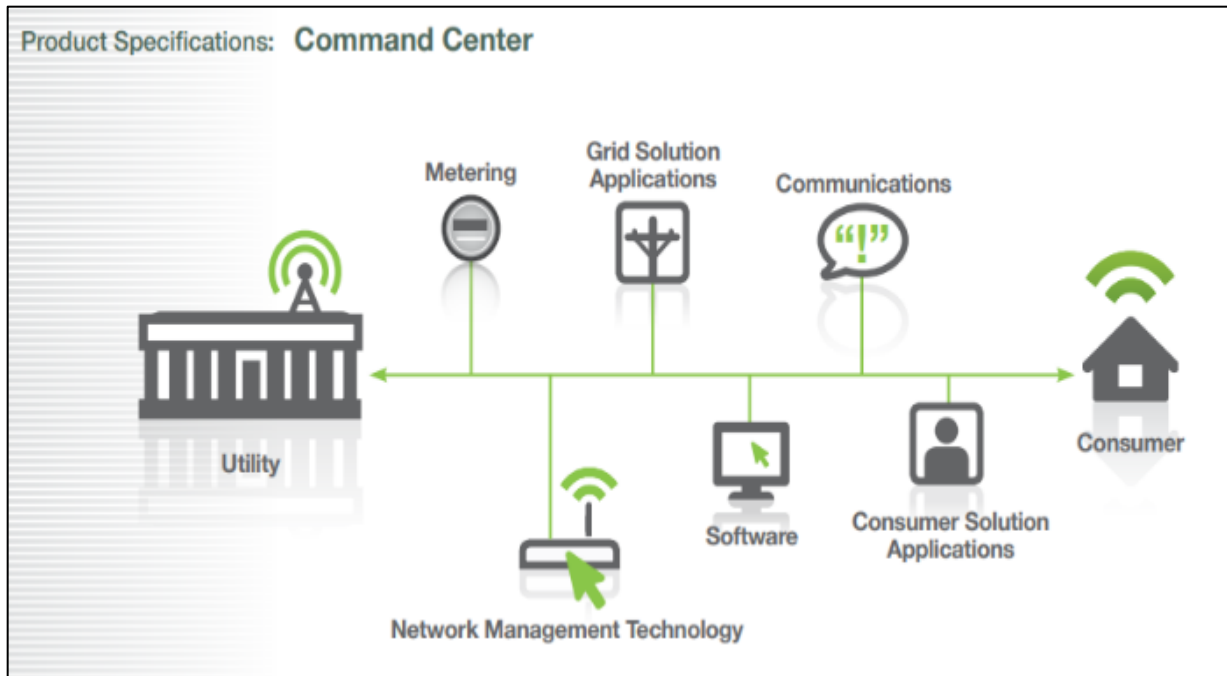
*Why Landis+Gyr makes a difference.*

- Robust management of the AMI system
- Network Management analytics and statistics
- Validation, storage and presentation of collected data
- Seamless integration to other utility applications
- Monitoring and alerting of standard and -user-configurable conditions
- In-depth analysis and reporting

### Innovative, Flexible & Secure

- Modular Software Architecture & deployment
- Market-leading security implementation
- Proven scalability to support the world's largest utilities
- Integration based on Service Oriented Architecture

Source: [https://www.landisgyr.com/webfoo/wp-ntent/uploads/2012/12/PS\\_CommandCenter.pdf](https://www.landisgyr.com/webfoo/wp-ntent/uploads/2012/12/PS_CommandCenter.pdf),  
Page 1



Source: [https://www.landisgyr.com/webfoo/wp-content/uploads/2012/12/PS\\_CommandCenter.pdf](https://www.landisgyr.com/webfoo/wp-content/uploads/2012/12/PS_CommandCenter.pdf), Page 2



Source: <https://www.landisgyr.eu/devices/?product-cat=0&product-region=603&product-country=7&keyword=#filter>

82. On information and belief, Defendants perform and induce others to perform the step of monitoring a health of a plurality of applications using a common monitoring protocol, at least two of said plurality of applications being based on different programming technology. This element is infringed literally, or in the alternative, under the doctrine of equivalents. For example, Gridstream Connect provides utilities the App Studio to build custom apps. These applications are installed on endpoints such as network nodes, gateways, meters and

sensors to gather data for solutions provided by the utilities. The health of applications (such as Activation Status, Application ID) and health of corresponding distributed components (such as device and sensor status, Sensor ID, voltage and current levels) is monitored using Gridstream Connect (“common monitoring protocol”). Further, the custom applications are designed by utilities in different programming languages using App Studio. Upon information and belief, the monitoring is independent of a programming technology of said plurality of client applications.

## Limitless growth potential

Harness data in new and exciting ways for limitless growth potential. Gridstream Connect Apps provide a fully integrated and open application ecosystem that enables the creation of secure, custom solutions tailored to your unique objectives. Build custom apps in the App Studio or leverage existing apps from the App Marketplace. Gridstream Connect Apps can be installed on a wide variety of intelligent endpoints to gather and integrate edge, field, and system level data to drive customer engagement and future growth for your business.

Source: <https://www.landisgyr.com/solution/gridstream-connect/>

## Landis+Gyr and MicroEJ Launch Custom Energy Apps Platform at CES

**Posted on:** 14 January 2019 **By:** chw staff

At CES this year Landis+Gyr partnership with MicroEJ introduced Gridstream Connect Apps as a part of the Gridstream Connect IoT solution portfolio. The Gridstream Connect Apps is already in the market where it helps utilities to offer meter-based flexible billing, demand management used for billing and load management, along with apps that convert a smart meter into a distribution system sensor.

According to Landis+Gyr the solution was designed to support grid-edge applications that require distributed intelligence and remote decision making. It also includes support for creating custom utility applications through the Gridstream Connect App Studio.

"Many of our customers have first-hand experience with the value these apps bring to their existing technology deployments. Our goal is to make it easier for developers and utilities to create, upload and run apps on their devices," said John Radgowski, Vice President of Portfolio Management at Landis+Gyr. "Over time, utilities will be able to access and share apps through the App Marketplace to take advantage of new ways to best utilize technology for energy management."

Source: <https://www.connectedhomeworld.com/content/landisgyr-and-microej-launch-custom-energy-apps-platform-ces>



Part of the cost savings comes from decoupling hardware innovations and app innovations. VEE creates safe harbors for apps by protecting the various components of a device. “You can write an app and then deploy it without putting the other parts of your system in danger,” Rivard says.

Plus, connectivity makes it easy to roll out an app – or share it, as well. Landis+Gyr is one of many companies partnered with MicroEJ to promote and support the creation of new energy management apps for both utilities and consumers. MicroEJ functionality is built into the Gridstream Connect App Studio and Gridstream Connect App Marketplace.

Ahead, Radgowski sees a day when utility engineers can download apps that power grid-edge devices as easily as kids download Candy Crush. Likewise, utility marketers will have several app options to offer consumers.

“Over time, utilities will be able to access and share apps through the App Marketplace to take advantage of new ways to best utilize technology for energy management,” Radgowski says. “Many of our customers have first-hand experience with the value these apps bring to their existing technology deployments. Our goal is to make it easier for developers and utilities to create, upload and run apps on their devices.”

Source: <https://www.landisgyr.com/ezine-article/pushing-smartsto-the-edge-tap-an-app/>

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### App OS

The App OS provides the foundation for custom-developed apps to be incorporated into the Gridstream Connect platform for system-wide access and integration.

### App Studio

The App Studio is a developers' toolkit that makes it easy to build and deploy custom apps on the Gridstream Connect platform. With the App Studio, design and create apps that meet your specific needs, whether internal, field-level or consumer-focused, and roll them out across the Gridstream Connect network.

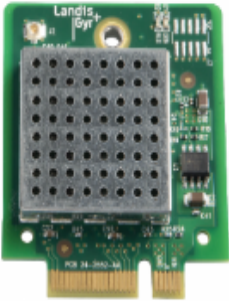
### App Marketplace

The App Marketplace enables Gridstream Connect partners to offer proven apps developed to support a wide range of specific use-cases, using the App OS and App Studio.

Source: <https://www.landisgyr.com/solution/gridstream-connect/>



Source: <https://www.landisgyr.eu/devices/?product-cat=0&product-region=603&product-country=7&keyword=#filter>



**COMMUNICATION NETWORKS**

## N500/N550 Network Node

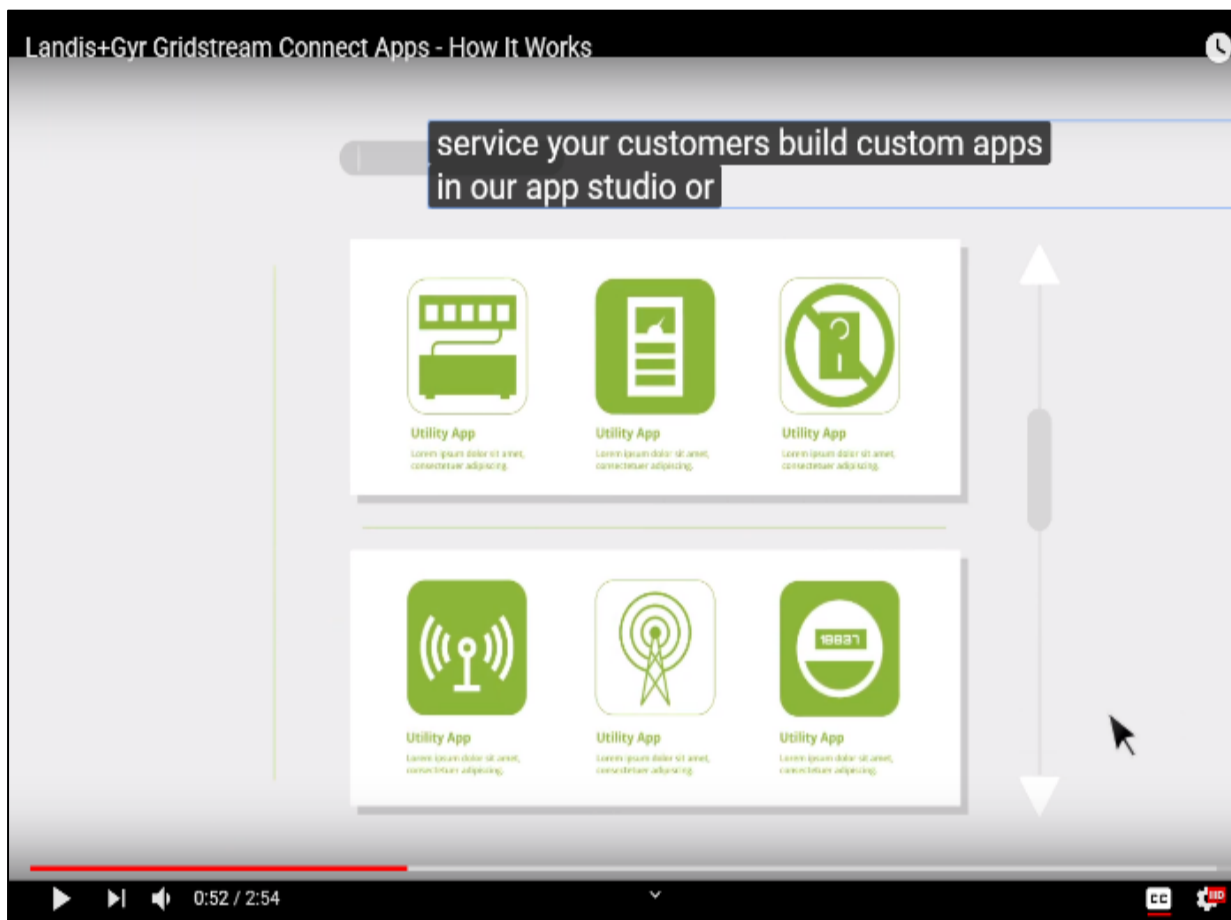
Landis+Gyr's Network Node is key to building a single, integrated IoT network. The Network Node is a fully-functional, tiny RF radio module—approximately 1.5" x 1.5"—that enables simple network device integration. You can quickly and seamlessly connect any device, from any... [Read more](#)

[View features](#) [Contact Us](#)

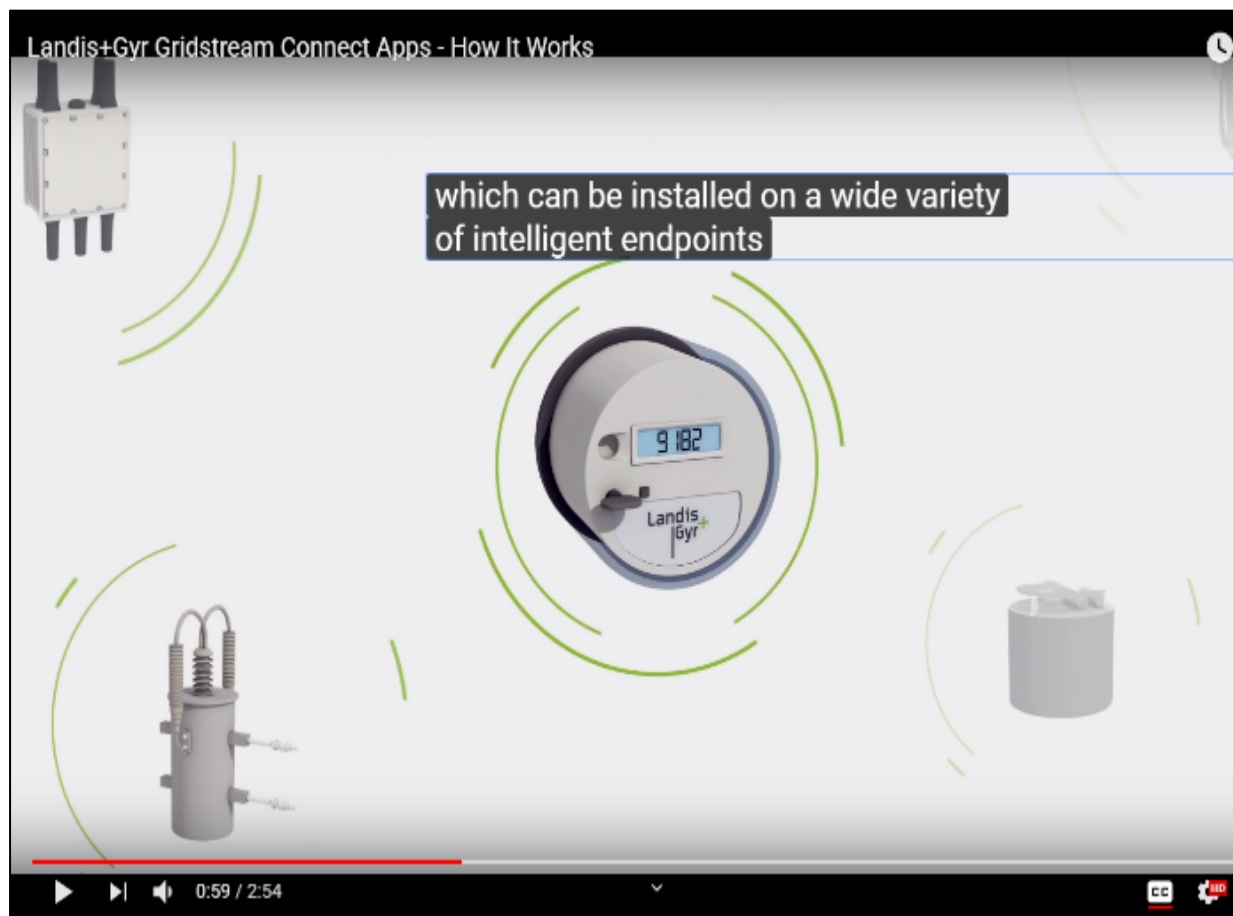
Source: <https://www.landisgyr.com/product/network-node/>

FEATURES	VARIATIONS	AVAILABILITY
<p><b>Easy Integration with IoT Devices</b></p> <ul style="list-style-type: none"> <li>• Small size allows for seamless integration into sensor modules</li> <li>• Configurable output power</li> <li>• “Plug and play” design</li> </ul>	<p><b>N500</b> – RF Mesh</p>	<p>Americas</p>
<p><b>Leverage and Extend Your Existing Network</b></p> <ul style="list-style-type: none"> <li>• Compact 900MHz radio</li> <li>• Designed to support open standards-based communications technologies</li> </ul>	<p><b>N550</b> – RF Mesh IP</p>	
<p><b>Edge Intelligence Platform</b></p> <ul style="list-style-type: none"> <li>• On-board microprocessor</li> <li>• <b>Device supports application development</b></li> <li>• Facilitates growth of utility and consumer-focused use cases</li> </ul>		

Source: <https://www.landisgyr.com/product/network-node/>



Source: [https://www.youtube.com/watch?time\\_continue=52&v=wY5G734Y-oM&feature=emb\\_logo](https://www.youtube.com/watch?time_continue=52&v=wY5G734Y-oM&feature=emb_logo)



Source: [https://www.youtube.com/watch?time\\_continue=52&v=wY5G734Y-oM&feature=emb\\_logo](https://www.youtube.com/watch?time_continue=52&v=wY5G734Y-oM&feature=emb_logo)

83. On information and belief, Defendants perform and induce others to perform the step of assessing said health of said plurality of applications. This element is infringed literally, or in the alternative, under the doctrine of equivalents. For example, Gridstream Connect assesses health of custom applications designed by utilities and corresponding endpoints such as meters, sensors and network nodes on which these apps are installed. The health value of applications comprises of values such as Application ID and Activation status of particular application. Further, health of corresponding endpoints comprises of device and sensor status, Sensor ID, voltage and current levels.

## Limitless growth potential

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### App Marketplace

The App Marketplace enables Gridstream Connect partners to offer proven apps developed to support a wide range of use-cases, using the App OS and App

Source: <https://www.landisgyr.com/solution/gridstream-connect/>



Gas Products  
M120 RF Residential Gas Module



Gas Products  
M220 RF Commercial & Industrial Gas Module



Communication Networks  
N2200/N2250 Network Bridge



Communication Networks  
N500/N550 Network Node

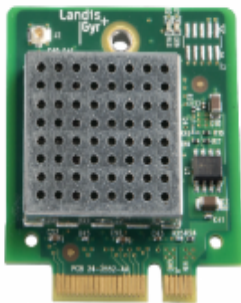


Grid Management  
Programmable Communicating Thermostat



Water Products  
RF Interpreter Water Module

Source: <https://www.landisgyr.eu/devices/?product-cat=0&product-region=603&product-country=7&keyword=#filter>



#### COMMUNICATION NETWORKS

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View features

Contact Us



Source: <https://www.landisgyr.com/product/network-node/>

#### FEATURES

##### Easy Integration with IoT Devices

- Small size allows for seamless integration into sensor modules
- Configurable output power
- “Plug and play” design

##### Leverage and Extend Your Existing Network

- Compact 900MHz radio
- Designed to support open standards-based communications technologies

##### Edge Intelligence Platform

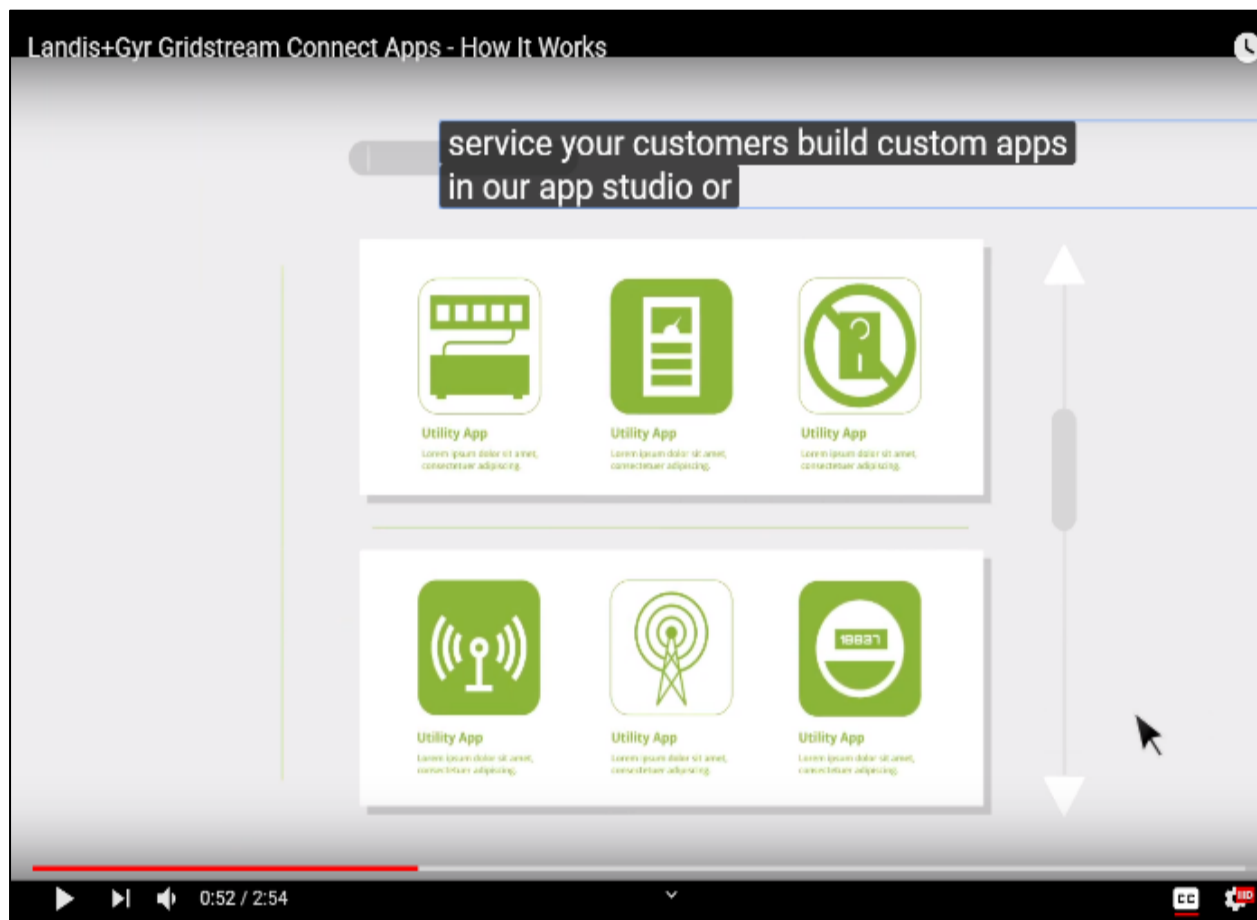
- On-board microprocessor
- Device supports application development
- Facilitates growth of utility and consumer-focused use cases

#### VARIATIONS

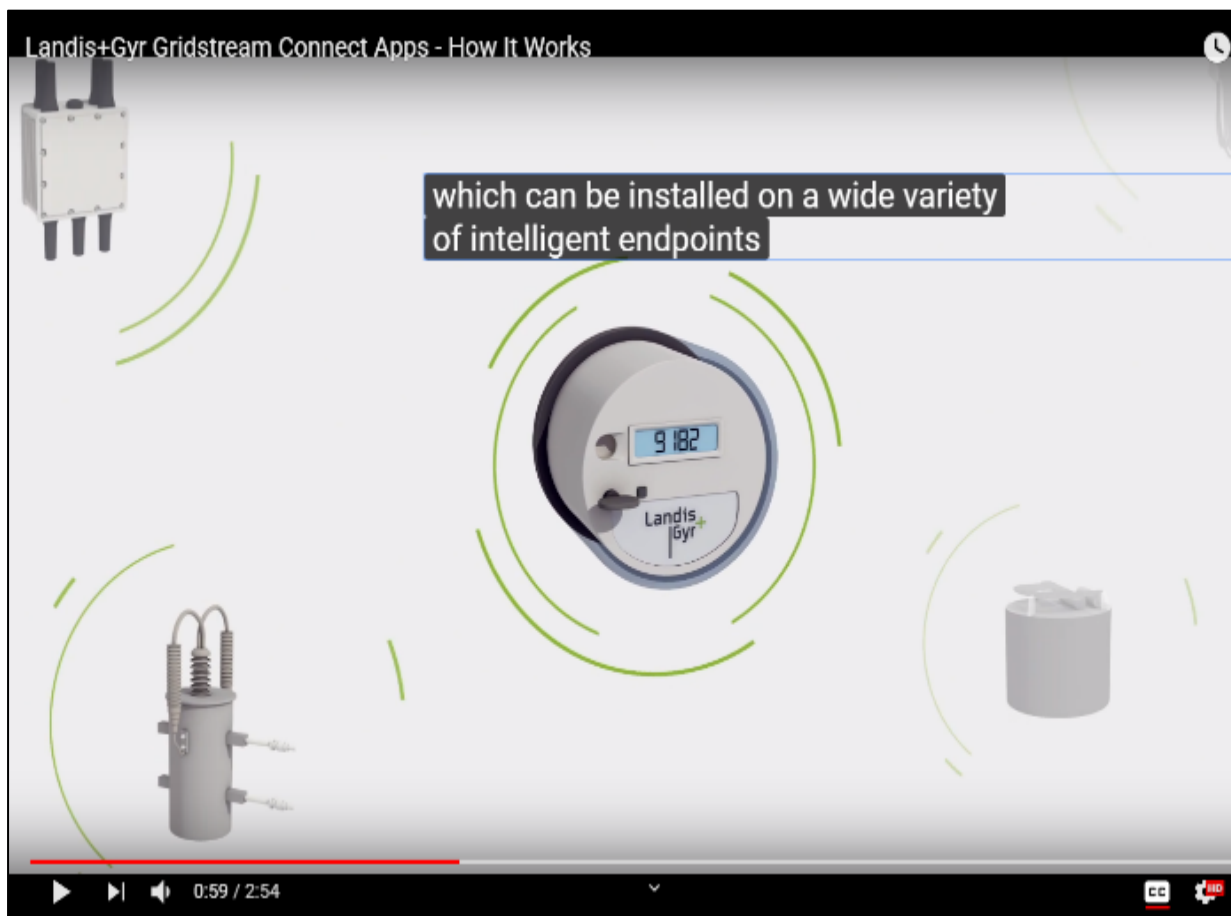
**N500** – RF Mesh

**N550** – RF Mesh IP

Source: <https://www.landisgyr.com/product/network-node/>



Source: [https://www.youtube.com/watch?time\\_continue=52&v=wY5G734Y-oM&feature=emb\\_logo](https://www.youtube.com/watch?time_continue=52&v=wY5G734Y-oM&feature=emb_logo)



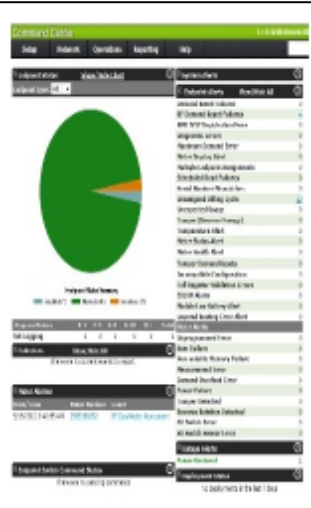
Source: [https://www.youtube.com/watch?time\\_continue=52&v=wY5G734Y-oM&feature=emb\\_logo](https://www.youtube.com/watch?time_continue=52&v=wY5G734Y-oM&feature=emb_logo)



Source: [https://www.youtube.com/watch?time\\_continue=52&v=wY5G734Y-oM&feature=emb\\_logo](https://www.youtube.com/watch?time_continue=52&v=wY5G734Y-oM&feature=emb_logo)

84. On information and belief, Defendants provide a common performance management interface to dynamically change a performance related configuration variable of said plurality of applications at runtime regardless of a programming technology of each of said plurality of applications. This element is infringed literally, or in the alternative, under the doctrine of equivalents. For example, the health of the custom applications designed by utilities and its corresponding endpoints (meters, sensors and network nodes) is displayed on the Gridstream Connect Command Center (“common performance management interface”).

Command Center brings data from communication infrastructure including RF Mesh, PLC and Cellular and provides endpoint programming, load control and consumer management in a single application. The dashboard includes graphical interfacing, mapping, alerts, information and actionable recommendations (“performance related configuration variable”) of applications at runtime regardless of programming technology of each application.



The screenshot shows the Command Center software interface. It features a navigation menu at the top with options like 'Home', 'Network', 'Operations', 'Reporting', and 'Help'. Below the menu, there's a main dashboard area with a large green pie chart on the left and a list of system components on the right. The components list includes items like 'Customer Data', 'Network Data', 'Operational Data', and 'Reporting Data'. The interface is clean and professional, with a green and white color scheme.

**GRIDSTREAM SOFTWARE**

# Command Center

Command Center is the browser-based operating software for Gridstream RF and PLC networks. It installs seamlessly, or can run on hosted servers, and provides a secure platform for data and system management throughout the utility. Reports are tailored for use by... [Read more](#)

[View features](#) [Contact Us](#)

**Description:**

Command Center is the browser-based operating software for Gridstream RF and PLC networks. It installs seamlessly, or can run on hosted servers, and provides a secure platform for data and system management throughout the utility. Reports are tailored for use by billing, finance, customer service, operations, distribution planning and engineering departments. Multiple integration partners and cross-platform functionality ensure Command Center will integrate into the entire business.

Source: <https://www.landisgyr.com/product/command-center/>

*Network Management for Today's Utility – Gateway to the Smart Grid*

## Overview

Command Center™ software is the gateway for all Gridstream® metering technologies and the control point for grid management network sensors. It's the critical link for opening access to valuable data for utility systems and directing actions which occur within the distributed intelligence residing at the network's edge.

Command Center brings data from any communication technology—including RF Mesh, PLC and Cellular; and for any commodity such as electricity, natural gas and water—into a single application. Command Center's innovative platform is designed for growth and extensibility to ensure a future ready solution for our customers.

### Operations Support

Command Center intelligence performs functions including:

- Remote endpoint programming
- Time-of-use period and rate configuration
- Basic validation and exception management
- Billing extract generation
- Remote disconnect management
- Critical peak usage analysis
- Load control index creation.

Operational processes supported includes:

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- System mapping and real-time awareness
- Network Management analytics and statistics
- Demand response management of devices
- Voltage monitoring

### FEATURES & BENEFITS:

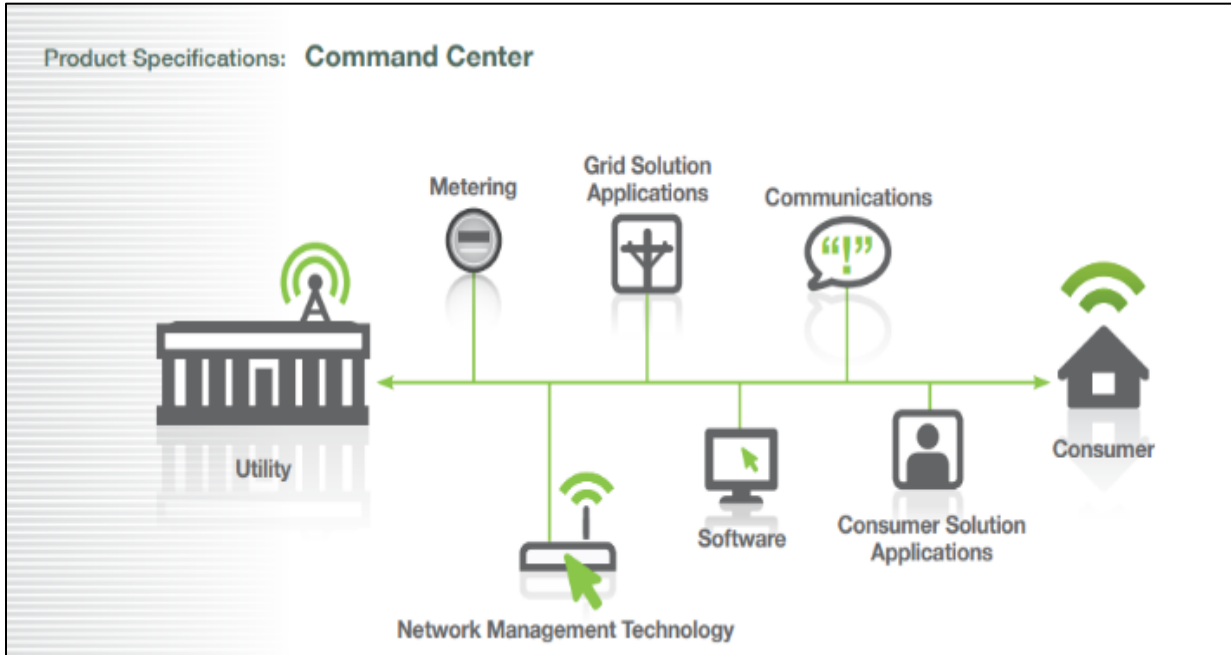
*Why Landis+Gyr makes a difference.*

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- In-depth analysis and reporting

### Innovative, Flexible & Secure

- Modular Software Architecture & deployment
- Market-leading security implementation
- Proven scalability to support the world's largest utilities
- Integration based on Service Oriented Architecture

Source: [https://www.landisgyr.com/webfoo/wp-content/uploads/2012/12/PS\\_CommandCenter.pdf](https://www.landisgyr.com/webfoo/wp-content/uploads/2012/12/PS_CommandCenter.pdf)



Source: [https://www.landisgyr.com/webfoo/wp-content/uploads/2012/12/PS\\_CommandCenter.pdf](https://www.landisgyr.com/webfoo/wp-content/uploads/2012/12/PS_CommandCenter.pdf)

### Platform Integration and Standards Leadership

As a MultiSpeak® and IEC 61968-9 (CIM) compliant solution, Command Center provides unparalleled integration capabilities.

Command Center's standards-based design, combined with an extensive Web Service library of more than 100 pre-built interfaces, makes it ready to use right from the start. The fact is Landis+Gyr's proven integration solutions empower hundreds of utilities to integrate their advanced metering and grid management solutions with back-office applications. And with unparalleled industry-leading vendor partnerships and dedicated integration teams, Landis+Gyr provides the key to integration success.

In addition to real-time application interfaces, Command Center delivers pre-built, yet flexible data extracts, in formats readily supported by adjacent systems. Every byte of processed data is available for use.

Fully integrated with Gridstream MDMS, and interoperable with systems including billing, customer service, engineering analysis, outage management, demand response, load management and field service applications, Command Center enhances productivity and delivers unmatched energy resource management and collaboration.

### System Requirements

Command Center is engineered to simultaneously process and validate meter readings for millions of devices quickly and efficiently. It can be configured as a stand-alone solution on a single server platform or scaled to a multiple-server platform. In addition, it can operate in either a Microsoft or Unix environment supporting a Microsoft SQL or Oracle database platform. Command Center hosting and management is also offered as a service with Landis+Gyr Cloud Services.

### Landis+Gyr Smart Grid Services and Customer Support

When you partner with Landis+Gyr and deploy an AMI system powered by Command Center, you'll have access to support and services expertise unequalled in the industry. You can rely on our technical support 24/7/365 with each Command Center installation. The Landis+Gyr Smart Grid Services team delivers unrivaled expertise and leverages decades of in-the-field experience to maximize the value of your investment and ensure business objectives are met.

### NETWORK MONITORING AND MANAGEMENT FEATURES

- Administrative Dashboards
- Exception Reporting
- Reading Collection Statistics
- Mapping
- Network Management
  - Message Communication Statistics
  - Device Latency Statistics
  - Collector Capacity
- Command, Error and Event tracking and reporting
- Interfaces available for data delivery to industry network monitoring systems

Source: [https://www.landisgyr.com/webfoo/wp-content/uploads/2012/12/PS\\_CommandCenter.pdf](https://www.landisgyr.com/webfoo/wp-content/uploads/2012/12/PS_CommandCenter.pdf)



85. BCS has been damaged by Defendants' infringement of the '612 Patent.

**COUNT III**  
**(Infringement of U.S. Patent No. 7,533,301)**

86. BCS incorporates the above paragraphs by reference.

87. Defendants have been on notice of the '301 Patent at least as early as the date it received service of this Original Complaint.

88. On information and belief, Defendants have infringed and continue to infringe Claims 1-24 of the '301 Patent by making, using, importing, selling, and/or, offering for sale the Accused Instrumentalities.

89. On information and belief, Defendants, with knowledge of the '301 Patent, infringe the '301 Patent by inducing others to infringe the '301 Patent. In particular, Defendants intend to induce customers to infringe the '301 Patent by encouraging customers to use the Accused Instrumentalities in a manner that results in infringement.

90. On information and belief, Defendants also induce others, including customers, to infringe the '301 Patent by providing technical support for the use of the Accused Instrumentalities.

91. On information and belief, at all times Defendants own and control the operation of the Accused Instrumentalities in accordance with an end user license agreement.

92. On information and belief, the Accused Instrumentalities infringe Claim 1 of the '301 Patent by providing a method of providing a high-level operational support system (OSS) framework by automatically discovering, with a server comprising the OSS framework, a plurality of applications that comply with a predefined framework.

93. On information and belief, to the extent the preamble is limiting, Defendants perform and induce others to perform a method of providing a high-level operational support system (OSS) framework. For example, Defendants provide Gridstream Connect, an Internet of Things platform comprising of hardware (meters, network nodes, gateways and sensors), software (Gridstream Integration Suite and Command Center), applications (Gridstream Connect apps and custom apps) and IPv6 network, configured by utilities according to their requirements and available infrastructure. It provides utilities with intelligence at endpoint, community and system level and provides solutions such as Meter Data Management System, Customer Information System, Distribution Automation and Load Control. Further, Gridstream Connect provides utilities an App Studio to build custom apps. These applications are installed on endpoints such as network nodes, gateways, meters and sensors to gather data for solutions provided by the utilities.

## BENEFITS OF GRIDSTREAM CONNECT

 <p><b>Open and Secure</b></p> <p>As a Wi-SUN member, we promote open standards-based interoperability. Virtually any device can be seamlessly and securely integrated into our network.</p>	 <p><b>Flexible for an Ever-Changing Future</b></p> <p>Gridstream Connect supports multiple communications technologies, even future technologies, to provide limitless potential for growth.</p>	 <p><b>Extend the Value of Your Assets</b></p> <p>Create a solution tailored to meet your needs and grow with you over time by connecting existing infrastructure with more modern devices.</p>	 <p><b>A Rich Ecosystem for Growth</b></p> <p>The platform ecosystem and partnerships enable utilities to explore new avenues of growth and efficiency and identify new sources for revenue through innovation.</p>
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Source: <https://www.landisgyr.com/solution/gridstream-connect/>

**Landis+Gyr**  
manage energy better

ABOUT LANDIS+GYR    OUR OFFERING    RESOURCES

# GRIDSTREAM CONNECT

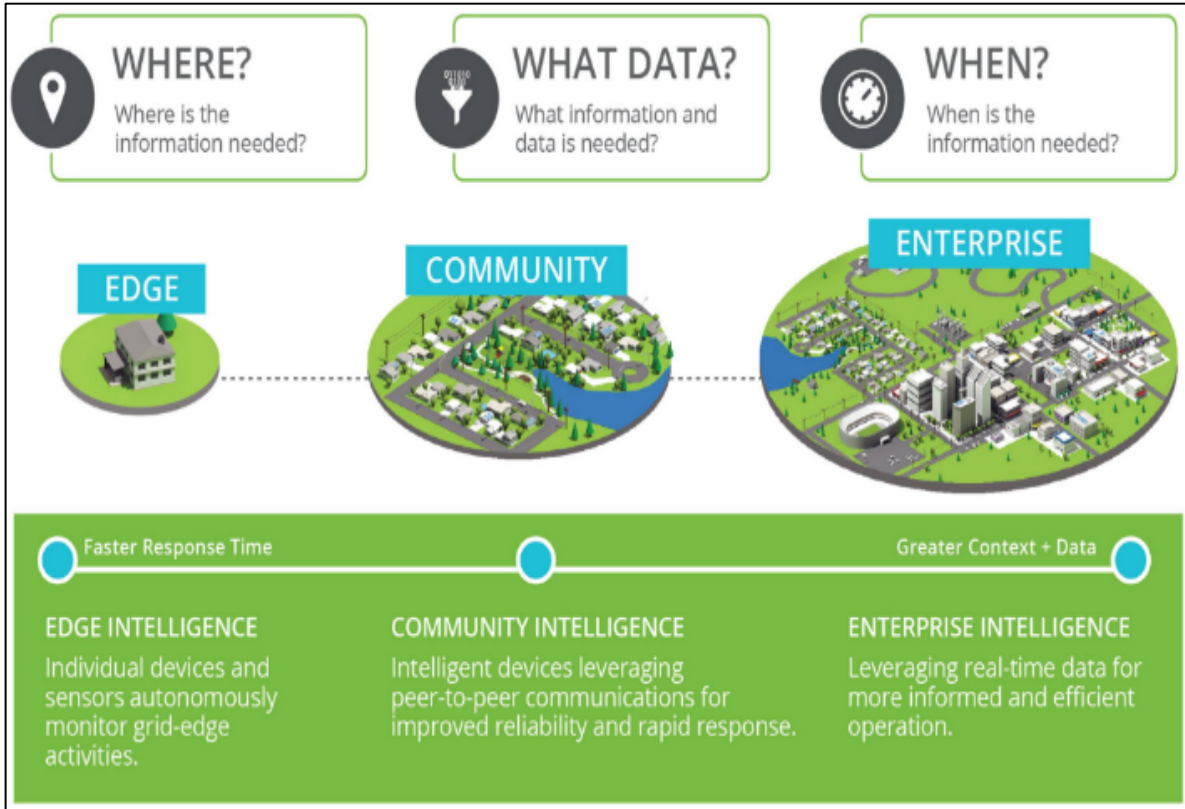
## The Flexible and Future-Ready Utility IoT Network Communications Platform

View related products and services ↓

### Your source for solutions

Gridstream® Connect. Landis+Gyr's utility IoT networking solution, is designed to work with today's communications technologies and expand to embrace those of the future. Backed by more than 25 years of proven interoperability experience, Gridstream Connect enables utilities to take advantage of the latest technology advances as soon as they become available.

Source: <https://www.landisgyr.com/solution/gridstream-connect/>



Source: <https://www.landisgyr.com/solution/gridstream-connect/>

## Limitless growth potential

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The App Marketplace enables Gridstream Connect partners to offer proven apps developed to support a wide range of specific use-cases, using the App OS and App Studio.

Source: <https://www.landisgyr.com/solution/gridstream-connect/>

Based on its recent analysis of the global advanced metering infrastructure (AMI) market, Frost & Sullivan recognizes Landis+Gyr with the 2019 Global Company of the Year Award for addressing customers' current and evolving needs with its cutting-edge AMI solutions.

Gridstream<sup>®</sup> Connect, Landis+Gyr's next-generation Internet of Things (IoT) platform, is rapidly proving capable of transforming utility operations. It is designed to drive

intelligence to the grid edge, at the community level, and across the distribution system to enable a highly robust approach to layered intelligence and machine decision-making. Gridstream Connect is the only utility IoT networking solution that is integrable with both current and future communications technologies.

"At the core of Gridstream Connect is Landis+Gyr's highly innovative IPv6 multi-technology network architecture that supports communication technologies such as RF Mesh, LoRa, and cellular, all on a single network manager," said Gautham Gnanajothi, global research director. "With a diverse sensor environment, flexible communications capability, and dedicated application enablement, Gridstream Connect is set to propel utilities beyond traditional applications and use cases. On the strength of its comprehensive product portfolio and forward-looking strategies, the company holds the leading shares in the global markets."

In addition to building a strong portfolio, Landis+Gyr has invested in and partnered with emerging technologies focused on expanding grid intelligence. One example is Sense, a technology company that specializes in monitoring and measuring the energy consumed by electrical devices. By leveraging Sense's technology and tying it to the Gridstream Connect IoT platform, Landis+Gyr enhances the value provided to utilities and consumers in terms of improved efficiency, enhanced reliability and security, and thorough demand response.



Source: <https://ww2.frost.com/news/landisgyr-applauded-by-frost-sullivan-for-advancing-utilities-capabilities-with-its-iot-based-gridstream-connect-platform/>

**Gridstream Integration Suite provides utilities with a proven pathway to getting maximum value from the data provided by the Gridstream advanced metering solution.**

010010 MDMS 10111001 GIS 01011101013010011010 CIS/BILLING 010  
 011101011 OUTAGE MANAGEMENT SYSTEMS 010100101110101110101  
 01 HAN/PEM 01011 DA/SCADA 010001101 BUSINESS INTEL/ANALYTICS  
 011101 CONSUMER PORTALS 10101001 WOMS 0110101 PREPAYMENT 1  
 010 ASSET MANAGEMENT 101000101 NETWORK MANAGEMENT 11010

The smart grid offers a new level of direct customer engagement in energy efficiency and demand response programs, while equipping utilities to improve reliability and service. This potential can only be realized with an integration platform that supports on-demand, two-way communications, and unlocks new and exciting business applications.

Gridstream Integration Suite, from Landis+Gyr, is the most mature integration platform in the industry today. Part of the modular Gridstream™ software platform, Gridstream Integration Suite brings years of integration experience to the industry. It provides utilities with a collection of packaged interface adapters and advanced web service API's providing connectivity to the most heavily used information systems. These integration components deploy right "out of the box" and begin returning value immediately.

**True Interoperability — Standards in Action**

Gridstream Integration Suite delivers on a commitment to standards progression and true interoperability that is unmatched in this industry. Landis+Gyr is actively involved through memberships, attendance, and influential voting on various standards bodies, but also delivers proven, real-world experience of supporting hundreds of customers that utilize these standards.

**The Gridstream Integration Suite, along with the Command Center software platform, has been MultiSpeak® compliant with our vendor partners for over five years. In addition, Landis+Gyr has embraced a global commitment to IEC 61968 (CIM) interoperability. During the first interoperability test performed against the IEC CIM 61968-9 standards in early 2010, Landis+Gyr was the only advanced metering vendor to test the head-end software platform, utilizing the Gridstream Integration Suite, and pass the required functionality.**



Gridstream Integration Suite uses standards-based interfaces that have been tested to work right out of the box.

Source: [https://www.landisgyr.com/webfoo/wp-content/uploads/2012/12/GSISBrochure\\_lr.pdf](https://www.landisgyr.com/webfoo/wp-content/uploads/2012/12/GSISBrochure_lr.pdf), Page 2

### Packaged Integration Solutions

Landis+Gyr offers solutions to fit the varying information and connectivity needs of utilities. Gridstream Integration Suite includes adapters that provide immediate benefits across all areas:

- Meter Data Management Systems (MDMS)
- Customer Information Systems (CIS) and Billing
- Business Intelligence and Analytics
- Outage Management Systems
- Geographical Information Systems (GIS)
- Home Area Network (HAN)
- Network Management Module
- Prepayment
- Distribution Automation and SCADA
- Load Control
- Enhanced Security
- Consumer Presentment
- Work Order Management System (WOMS)
- Asset Management
- IP and C12.22



Source: [https://www.landisgyr.com/webfoo/wp-content/uploads/2012/12/GSISBrochure\\_1r.pdf](https://www.landisgyr.com/webfoo/wp-content/uploads/2012/12/GSISBrochure_1r.pdf), Page 3





### SmartData Connect

SmartData Connect™ is a customer engagement platform that transforms meter data into an easy to use resource for both consumers and utility personnel. It is a secure and flexible portal, integrated (standards-based) with the Gridstream® Command Center head end as well...



### SmartData for Outage Management

The number one task of a utility is to provide a much-needed commodity without interruption. So when an outage occurs, the affected world practically stops, and returning to normal requires a more effective use of information; It is available through...



### Core MDMS

A finely tuned database repository stores all customer and meter metadata. In addition, the usage and diagnostic data provides the foundation for the analytics and business processes within the Core and SmartData Applications.

Source: <https://www.landisgyr.com/solution/meter-data-management/>

## Overview

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Command Center brings data from any communication technology—including RF Mesh, PLC and Cellular; and for any commodity such as electricity, natural gas and water—into a single application. Command Center's innovative platform is designed for growth and extensibility to ensure a future ready solution for our customers.

### Operations Support

Command Center intelligence performs functions including:

- Remote endpoint programming
- Time-of-use period and rate configuration
- Basic validation and exception management
- Billing extract generation
- Remote disconnect management
- Critical peak usage analysis
- Load control index creation.

### Operational processes supported includes:

- Billing support and exception reports
- On-demand device command and control
- System mapping and real-time awareness
- Network Management analytics and statistics
- Demand response management of devices
- Voltage monitoring

### FEATURES & BENEFITS:

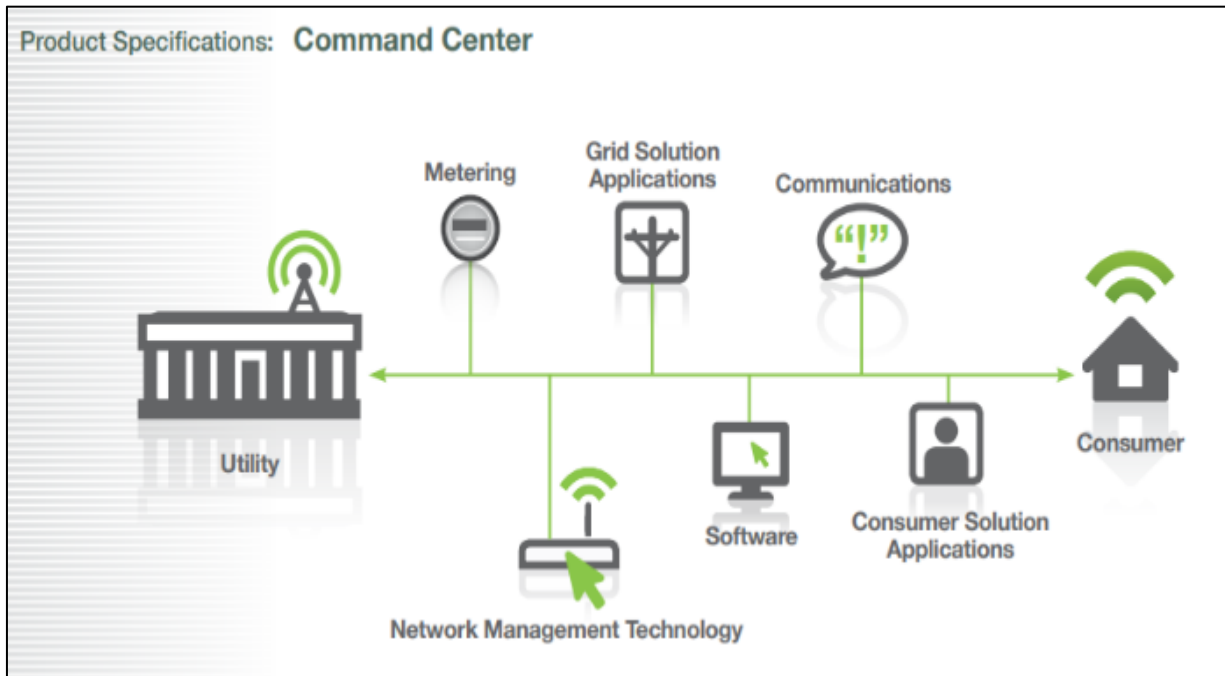
*Why Landis+Gyr makes a difference.*

- Robust management of the AMI system
- Network Management analytics and statistics
- Validation, storage and presentation of collected data
- Seamless integration to other utility applications
- Monitoring and alerting of standard and -user-configurable conditions
- In-depth analysis and reporting

### Innovative, Flexible & Secure

- Modular Software Architecture & deployment
- Market-leading security implementation
- Proven scalability to support the world's largest utilities
- Integration based on Service Oriented Architecture

Source: [https://www.landisgyr.com/webfoo/wp-ntent/uploads/2012/12/PS\\_CommandCenter.pdf](https://www.landisgyr.com/webfoo/wp-ntent/uploads/2012/12/PS_CommandCenter.pdf),  
Page 1



Source: [https://www.landisgyr.com/webfoo/wp-content/uploads/2012/12/PS\\_CommandCenter.pdf](https://www.landisgyr.com/webfoo/wp-content/uploads/2012/12/PS_CommandCenter.pdf), Page 2



Source: <https://www.landisgyr.eu/devices/?product-cat=0&product-region=603&product-country=7&keyword=#filter>

94. On information and belief, Defendants perform and induce others to perform the step of automatically discovering, with a server comprising said OSS framework, a plurality of applications that comply with a predefined framework. This element is infringed literally, or in the alternative, under the doctrine of equivalents. For example, Gridstream Connect is a single, unified platform for monitoring, optimizing and improving network operations. It provides utilities the App Studio to build custom apps. These applications are installed on

endpoints such as network nodes, gateways, meters and sensors to gather data for solutions provided by the utilities. Gridstream Connect automatically discovers the configuration of the utilities from a server and provides corresponding applications to the utilities.

## Limitless growth potential

Harness data in new and exciting ways for limitless growth potential. Gridstream Connect Apps provide a fully integrated and open application ecosystem that enables the creation of secure, custom solutions tailored to your unique objectives. Build custom apps in the App Studio or leverage existing apps from the App Marketplace. Gridstream Connect Apps can be installed on a wide variety of intelligent endpoints to gather and integrate edge, field, and system level data to drive customer engagement and future growth for your business.

Source: <https://www.landisgyr.com/solution/gridstream-connect/>

## Landis+Gyr and MicroEJ Launch Custom Energy Apps Platform at CES

**Posted on:** 14 January 2019 **By:** chw staff

At CES this year Landis+Gyr partnership with MicroEJ introduced Gridstream Connect Apps as a part of the Gridstream Connect IoT solution portfolio. The Gridstream Connect Apps is already in the market where it helps utilities to offer meter-based flexible billing, demand management used for billing and load management, along with apps that convert a smart meter into a distribution system sensor.

According to Landis+Gyr the solution was designed to support grid-edge applications that require distributed intelligence and remote decision making. It also includes support for creating custom utility applications through the Gridstream Connect App Studio.

"Many of our customers have first-hand experience with the value these apps bring to their existing technology deployments. Our goal is to make it easier for developers and utilities to create, upload and run apps on their devices," said John Radgowski, Vice President of Portfolio Management at Landis+Gyr. "Over time, utilities will be able to access and share apps through the App Marketplace to take advantage of new ways to best utilize technology for energy management."

Source: <https://www.connectedhomeworld.com/content/landisgyr-and-microej-launch-custom-energy-apps-platform-ces>

Part of the cost savings comes from decoupling hardware innovations and app innovations. VEE creates safe harbors for apps by protecting the various components of a device. "You can write an app and then deploy it without putting the other parts of your system in danger," Rivard says.

Plus, connectivity makes it easy to roll out an app – or share it, as well. Landis+Gyr is one of many companies partnered with MicroEJ to promote and support the creation of new energy management apps for both utilities and consumers. MicroEJ functionality is built into the Gridstream Connect App Studio and Gridstream Connect App Marketplace.

Ahead, Radgowski sees a day when utility engineers can download apps that power grid-edge devices as easily as kids download Candy Crush. Likewise, utility marketers will have several app options to offer consumers.

"Over time, utilities will be able to access and share apps through the App Marketplace to take advantage of new ways to best utilize technology for energy management," Radgowski says. "Many of our customers have first-hand experience with the value these apps bring to their existing technology deployments. Our goal is to make it easier for developers and utilities to create, upload and run apps on their devices."

Source: <https://www.landisgyr.com/ezine-article/pushing-smartsto-the-edge-tap-an-app/>

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### App OS

The App OS provides the foundation for custom-developed apps to be incorporated into the Gridstream Connect platform for system-wide access and integration.

### App Studio

The App Studio is a developers' toolkit that makes it easy to build and deploy custom apps on the Gridstream Connect platform. With the App Studio, design and create apps that meet your specific needs, whether internal, field-level or consumer-focused, and roll them out across the Gridstream Connect network.

### App Marketplace

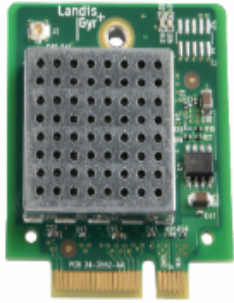
The App Marketplace enables Gridstream Connect partners to offer proven apps developed to support a wide range of specific use-cases, using the App OS and App Studio.

Source: <https://www.landisgyr.com/solution/gridstream-connect/>





Source: <https://www.landisgyr.eu/devices/?product-cat=0&product-region=603&product-country=7&keyword=#filter>



**COMMUNICATION NETWORKS**

## N500/N550 Network Node

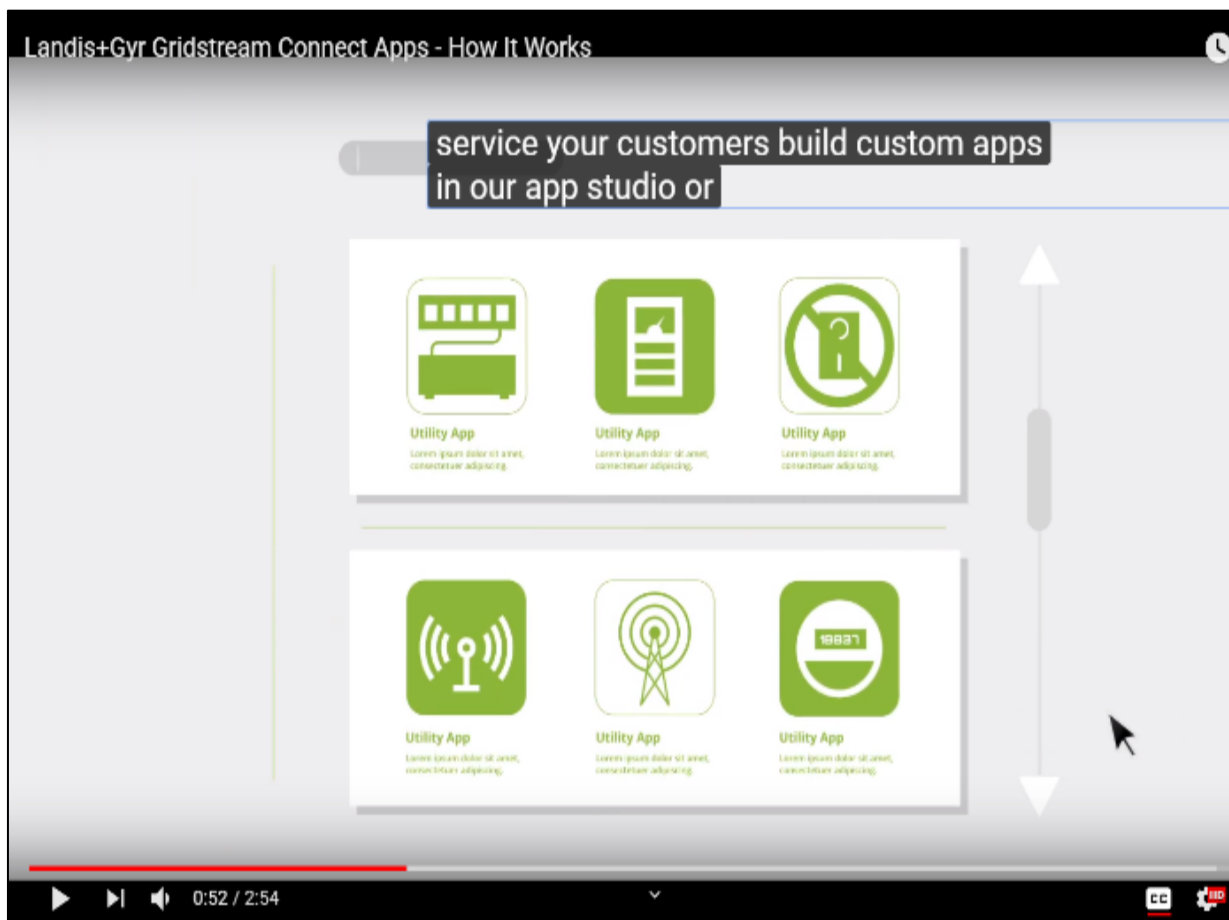
Landis+Gyr's Network Node is key to building a single, integrated IoT network. The Network Node is a fully-functional, tiny RF radio module—approximately 1.5" x 1.5"—that enables simple network device integration. You can quickly and seamlessly connect any device, from any... [Read more](#)

[View features](#) [Contact Us](#)

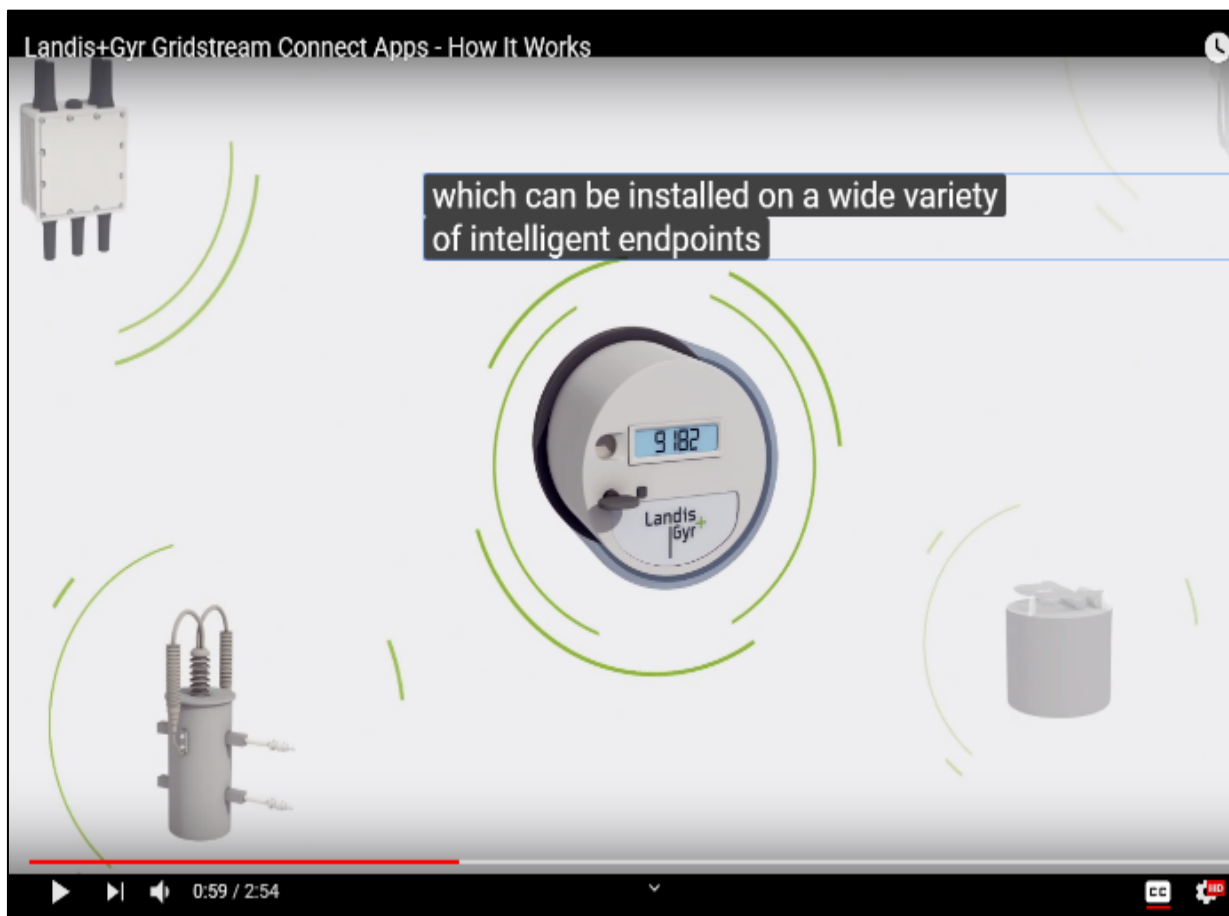
Source: <https://www.landisgyr.com/product/network-node/>

FEATURES	VARIATIONS	AVAILABILITY
<b>Easy Integration with IoT Devices</b>	<b>N500</b> – RF Mesh	Americas
<ul style="list-style-type: none"><li>• Small size allows for seamless integration into sensor modules</li><li>• Configurable output power</li><li>• “Plug and play” design</li></ul>	<b>N550</b> – RF Mesh IP	
<b>Leverage and Extend Your Existing Network</b>		
<ul style="list-style-type: none"><li>• Compact 900MHz radio</li><li>• Designed to support open standards-based communications technologies</li></ul>		
<b>Edge Intelligence Platform</b>		
<ul style="list-style-type: none"><li>• On-board microprocessor</li><li>• <b>Device supports application development</b></li><li>• Facilitates growth of utility and consumer-focused use cases</li></ul>		

Source: <https://www.landisgyr.com/product/network-node/>



Source: [https://www.youtube.com/watch?time\\_continue=52&v=wY5G734Y-oM&feature=emb\\_logo](https://www.youtube.com/watch?time_continue=52&v=wY5G734Y-oM&feature=emb_logo)



Source: [https://www.youtube.com/watch?time\\_continue=52&v=wY5G734Y-oM&feature=emb\\_logo](https://www.youtube.com/watch?time_continue=52&v=wY5G734Y-oM&feature=emb_logo)

95. On information and belief, Defendants perform or induce others to perform the step of providing for a high level of management, by said server comprising said OSS framework, of said plurality of applications dynamically at runtime regardless of a platform technology utilized by any particular application from said plurality of applications. This element is infringed literally, or in the alternative, under the doctrine of equivalents. For example, the health of the custom applications designed by utilities and its corresponding endpoints (meters, sensors and network nodes) is displayed on the Gridstream Connect Command Center (“common performance management interface”). Command Center brings data from



*Network Management for Today's Utility – Gateway to the Smart Grid*

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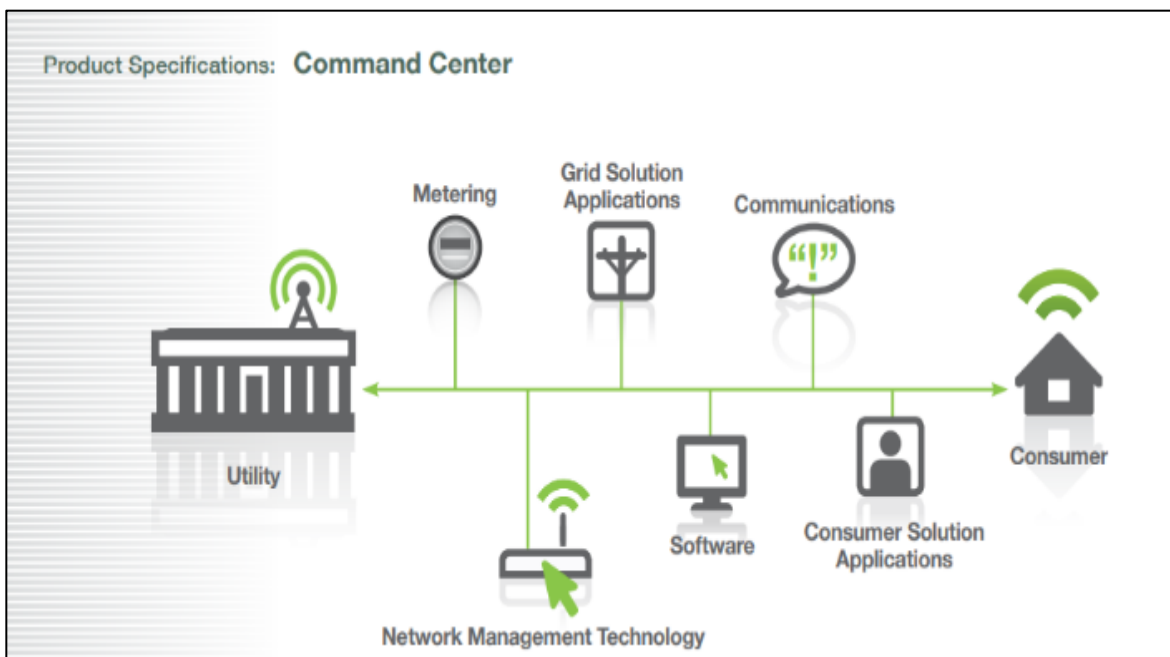
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<p><b>Platform Integration and Standards Leadership</b></p> <p>As a MultiSpeak® and IEC 61968-9 (CIM) compliant solution, Command Center provides unparalleled integration capabilities.</p> <p>Command Center's standards-based design, combined with an extensive Web Service library of more than 100 pre-built interfaces, makes it ready to use right from the start. The fact is Landis+Gyr's proven integration solutions empower hundreds of utilities to integrate their advanced metering and grid management solutions with back-office applications. And with unparalleled industry-leading vendor partnerships and dedicated integration teams, Landis+Gyr provides the key to integration success.</p> <p>In addition to real-time application interfaces, Command Center delivers pre-built, yet flexible data extracts, in formats readily supported by adjacent systems. Every byte of processed data is available for use.</p> <p>Fully integrated with Gridstream MDMS, and interoperable with systems including billing, customer service, engineering analysis, outage management, demand response, load management and field service applications, Command Center enhances productivity and delivers unmatched energy resource management and collaboration.</p>	<p><b>System Requirements</b></p> <p>Command Center is engineered to simultaneously process and validate meter readings for millions of devices quickly and efficiently. It can be configured as a stand-alone solution on a single server platform or scaled to a multiple-server platform. In addition, it can operate in either a Microsoft or Unix environment supporting a Microsoft SQL or Oracle database platform. Command Center hosting and management is also offered as a service with Landis+Gyr Cloud Services.</p> <p><b>Landis+Gyr Smart Grid Services and Customer Support</b></p> <p>When you partner with Landis+Gyr and deploy an AMI system powered by Command Center, you'll have access to support and services expertise unequalled in the industry. You can rely on our technical support 24/7/365 with each Command Center installation. The Landis+Gyr Smart Grid Services team delivers unrivaled expertise and leverages decades of in-the-field experience to maximize the value of your investment and ensure business objectives are met.</p>	<p><b>NETWORK MONITORING AND MANAGEMENT FEATURES</b></p> <ul style="list-style-type: none"> <li>■ Administrative Dashboards</li> <li>■ Exception Reporting</li> <li>■ Reading Collection Statistics</li> <li>■ Mapping</li> <li>■ Network Management <ul style="list-style-type: none"> <li>• Message Communication Statistics</li> <li>• Device Latency Statistics</li> <li>• Collector Capacity</li> </ul> </li> <li>■ Command, Error and Event tracking and reporting</li> <li>■ Interfaces available for data delivery to industry network monitoring systems</li> </ul>
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Source: [https://www.landisgyr.com/webfoo/wp-content/uploads/2012/12/PS\\_CommandCenter.pdf](https://www.landisgyr.com/webfoo/wp-content/uploads/2012/12/PS_CommandCenter.pdf)

96. BCS has been damaged by Defendants' infringement of the '301 Patent.



**PRAYER FOR RELIEF**

WHEREFORE, BCS respectfully requests the Court enter judgment against Defendants:

1. declaring that the Defendants have infringed each of the Patents-in-Suit;
2. awarding BCS its damages suffered as a result of Defendants' infringement of the Patents-in-Suit;
3. awarding BCS its costs, attorneys' fees, expenses, and interest;
4. awarding BCS ongoing post-trial royalties; and
5. granting BCS such further relief as the Court finds appropriate.

**JURY DEMAND**

BCS demands trial by jury, under Fed. R. Civ. P. 38.

Dated: January 3, 2020

Respectfully Submitted

/s/ Thomas G. Fasone III  
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**BCS SOFTWARE LLC**