

Itron Inc. : Portfolio Report

Introduction

Itron is an American technology company that offers end-to-end smart distribution and smart grid solutions to electric, water, and gas utility customers across the globe. The company is headquartered in Washington D.C. Itron was founded in 1977 and currently serves more than 8000 customers in over 100 countries. ^[1]

Itron's product portfolio includes measurement devices such as standard meters, smart meters, communication systems and other software, for applications in both residential and commercial industrial markets. The service portfolio of the company includes consulting services, managed services, licensing meter data management services, licensing hardware services, software-as-a-service (SaaS), and technical support services. ^[2]

The company has electricity manufacturing facilities in North America, Africa (EMEA), Europe, and the Middle East. It also has manufacturing facilities for gas and water in various parts of the world. ^[2]

In 2017, Itron strengthened its position in the smart grid and industrial IoT markets by acquiring Silver Spring Networks, another leading provider of grid networks, smart meters, and software and services. ^[3]

This report takes a closer look at the patents in Itron's portfolio that are currently in force. It includes a portfolio taxonomy and provides insights into various aspects of the overall portfolio.

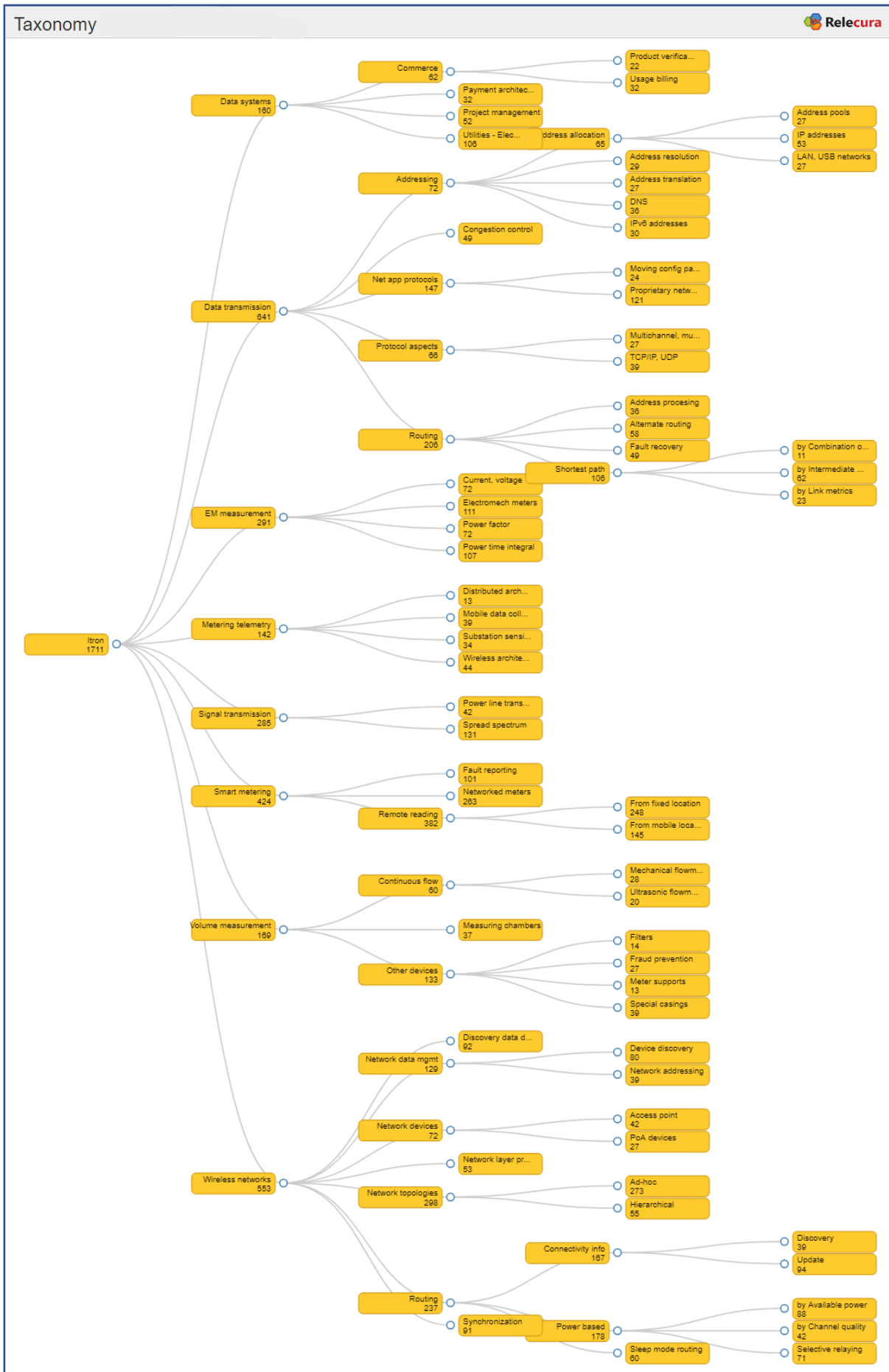
The report also analyzes the IP impact of the acquisition of Silver Spring Networks on Itron's overall portfolio with a side-by-side comparison across various technology categories, of Itron's patent holdings prior to the acquisition with the patent assets acquired from Silver Spring Networks.

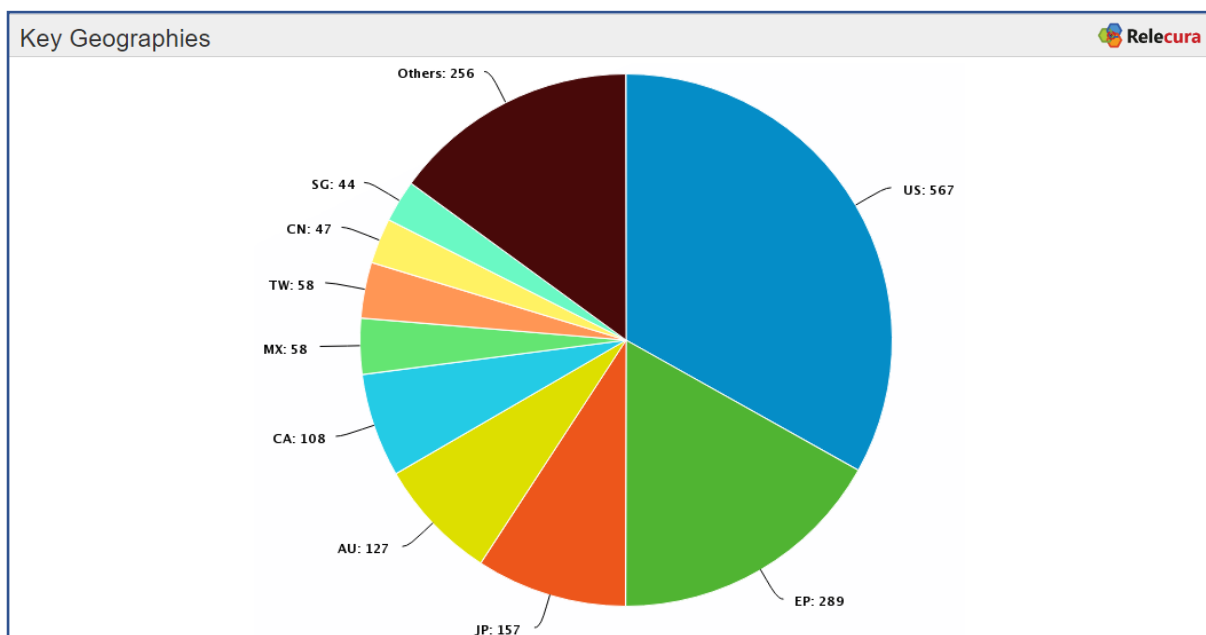
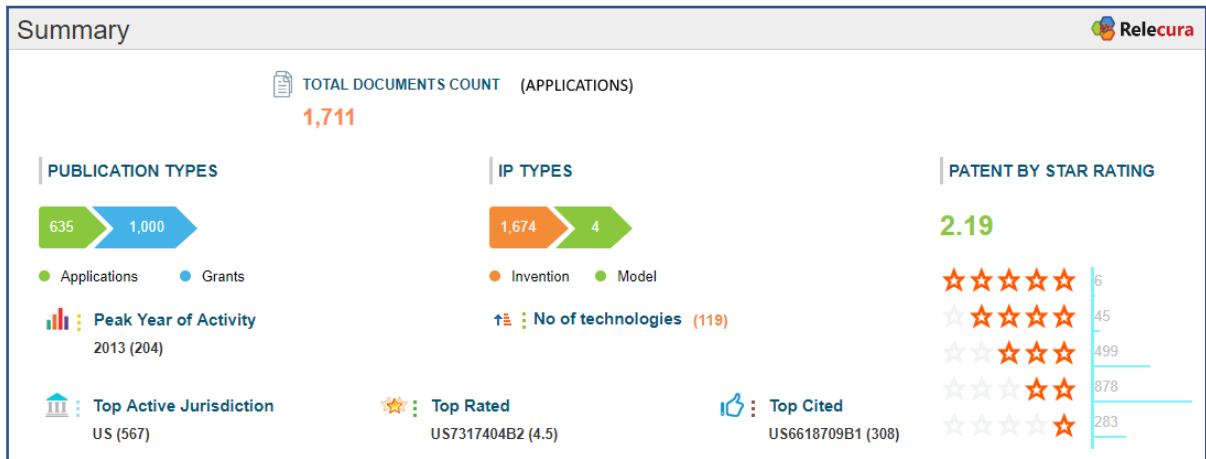
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Sources


- [1] [Itron \(Wikipedia\)](#)
- [2] [Itron Company Profile \(Reuters\)](#)
- [3] [Itron completes acquisition of Silver Spring Networks \(Press Release\)](#)

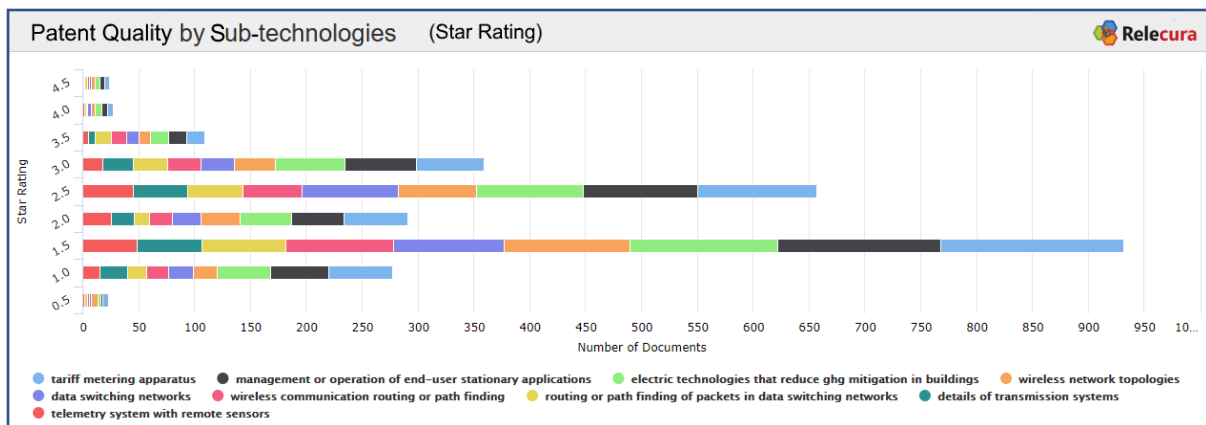
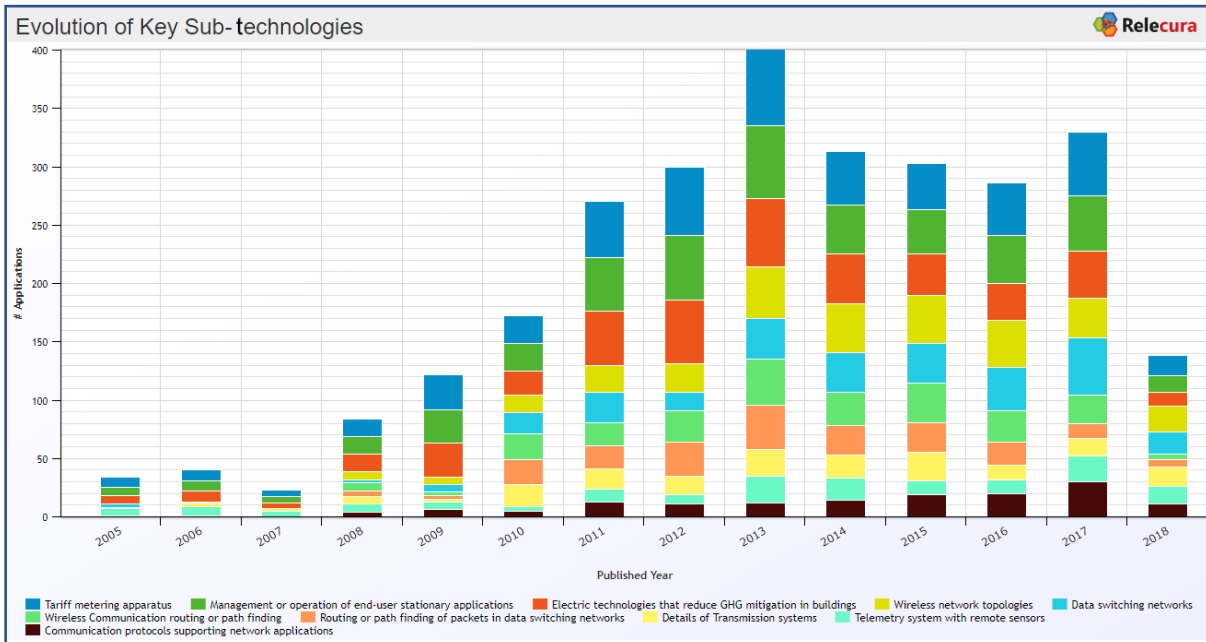




Key Technologies		
Technologies	# Applications	
Data Transmission	640	
Wireless Communication Networks	552	
Greentech - Smart Grid	518	
Measurement - Tariff Meters	507	
Greentech - Home	436	
Measurement - Electric & Magnetic Variables	291	
Signal Transmission	285	
Digital Data Processing	262	
Signal Transmission Systems	204	

Key Sub-technologies		
Sub-technologies	# Applications	
Tariff Metering Apparatus	475	
Management or Operation of End-User Stationary Applications	439	
Electric Technologies that Reduce GHG Mitigation in Buildings	413	
Wireless Network Topologies	297	
Data Switching Networks	281	
Wireless Communication Routing or Path Finding	237	
Routing or Path Finding of Packets In Data Switching Networks	206	
Details of Transmission Systems	186	
Telemetry System with Remote Sensors	163	

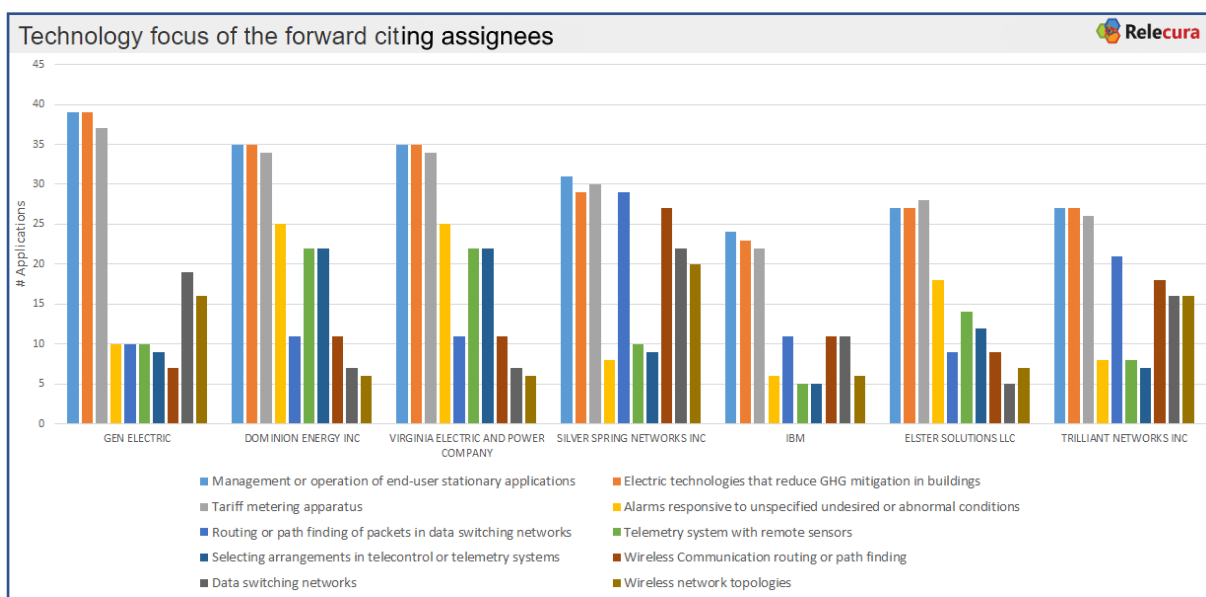
Analysis of Key Technologies				
Technologies	Applications	Grants	Sub Technologies	Geographies
data transmission	219	393	data switching networks (281) , wireless network topologies (225) , routing or path finding of packets in data switching networks (206) , management or operation of end-user stationary applications (204) , tariff metering apparatus (203)	US (231) , EP (90) , AU (57) , CA (46) , TW (36)
wireless communication networks	157	364	wireless network topologies (298) , wireless communication routing or path finding (237) , routing or path finding of packets in data switching networks (202) , data switching networks (193) , management or operation of end-user stationary applications (191)	US (180) , EP (79) , AU (54) , CA (51) , JP (31)
greentech - smart grid	169	331	management or operation of end-user stationary applications (439) , electric technologies that reduce ghg mitigation in buildings (413) , tariff metering apparatus (408) , wireless network topologies (142) , data switching networks (125)	US (210) , EP (80) , CA (47) , AU (38) , MX (28)
measurement - tariff meters	166	320	tariff metering apparatus (475) , management or operation of end-user stationary applications (406) , electric technologies that reduce ghg mitigation in buildings (392) , wireless network topologies (136) , telemetry system with remote sensors (111)	US (187) , EP (95) , CA (54) , AU (40) , MX (29)
greentech - home	125	295	management or operation of end-user stationary applications (424) , electric technologies that reduce ghg mitigation in buildings (413) , tariff metering apparatus (392) , wireless network topologies (142) , data switching networks (105)	US (172) , EP (68) , CA (44) , AU (30) , MX (26)



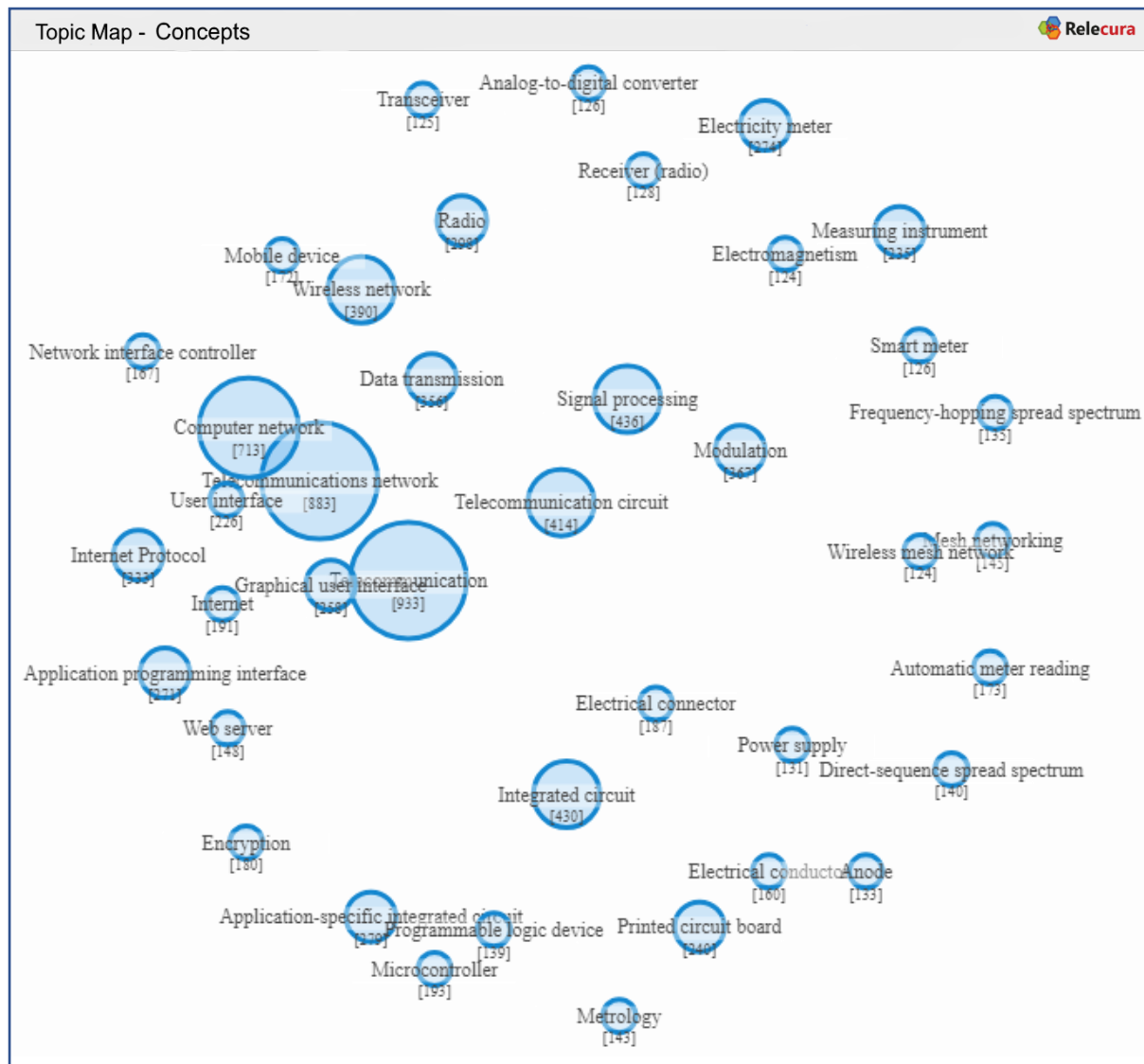
Key Patents

Publicaton No.	Title	Inventor	Filing Date	Star Rating	#Fwd Citations
US8423637B2	System, method and program for detecting anomalous events in a utility network	Raj Vaswani, Jana van Greunen, Aditi Dubey, Kunal Pankaj Shah	2010-08-06	4.5	79
US8116917B2	System for controlling a power load	Mark E. Rodgers	2010-05-27	4.5	88
US8279870B2	Method and system of routing in a utility smart-grid network	George Flammer, III, Raj Vaswani	2007-08-01	4.5	102
US7317404B2	Method and apparatus for collecting and displaying consumption data from a meter reading system	Scott Cumeralto, Richard DeVries	2005-01-13	4.5	167
US8059011B2	Outage notification system	Hartman Van Wyk, Fabrice Monier, Jerome Bartier	2007-09-10	4.5	103

Top Forward Citing Assignees	
FC Assignees	# Applications
GEN ELECTRIC	84
DOMINION ENERGY INC	77
VIRGINIA ELECTRIC AND POWER COMPANY	77
SILVER SPRING NETWORKS INC	67
IBM	55
ELSTER SOLUTIONS LLC	52
TRILLIANT NETWORKS INC	51



Key Acquisitions		
Transfer from	# Applications	Technologies
SILVER SPRING NETWORKS INC	161	data transmission (105), wireless communication networks (84), greentech - smart grid (60), digital data processing (55), greentech - home (36)
SMARTSYNCH INC	22	data transmission (9), greentech - smart grid (9), wireless communication networks (9), control systems - non electric variables (8), greentech - home (8)
ACTARIS SAS	14	measurement - volume (12), measurement - tariff meters (5), measurement - electric & magnetic variables (4), doors, windows, blinds, gates (2), electric power converters (2)



Itron's acquisition of Silver Spring Networks - IP impact				Relecura	
Itron's pre-acquisition patent position vs. patent assets acquired from Silver Spring Networks Numbers given are patent applications for technology categories color-coded 				Itron (Pre-acquisition)	Silver Spring Networks
Data systems	Commerce	Product verification		5	17
		Usage billing		9	25
	Payment architecture			20	13
		Project management		23	31
	Utilities - Elec, gas, water		77	32	
Data transmission	Addressing	Address allocation	Address pools	4	27
			IP addresses	20	39
		LAN, USB networks		4	27
			Address resolution	6	29
			Address translation	4	27
			DNS	9	33
	IPv6 addresses	7	27		
	Congestion control		28	34	
	Net app protocols	Moving config parameters		23	1
		Proprietary networks		69	60
	Protocol aspects	Multichannel, multilink		4	27
		TCP/IP, UDP		6	39
	Routing	Address procesing		6	36
			Alternate routing	15	53
			Fault recovery	21	33
		Shortest path	by Combination of metrics	2	11
			by Intermediate node characteristics	62	0
	by Link metrics	7	23		
EM measurement	Current, voltage		67	6	
	Electromech meters		101	13	
	Power factor		53	20	
	Power time integral		103	5	
Metering telemetry	Distributed architecture		13	0	
	Mobile data collection		39	0	
	Substation sensing device		23	15	
	Wireless architecture		44	0	
Signal transmission	Power line transmission		31	14	
	Spread spectrum		107	31	
Smart metering	Fault reporting		78	28	
	Networked meters		185	97	
			178	82	
	Remote reading	From fixed location	144	1	
Volume measurement	Continuous flow	Mechanical flowmeters	28	0	
		Ultrasonic flowmeters	20	0	
	Measuring chambers		37	0	
	Other devices	Filters	14	0	
		Fraud prevention	27	0	
		Meter supports	13	0	
		Special casings	39	0	
Wireless networks	Discovery data delivery		65	31	
	Network data mgmt	Device discovery	73	7	
		Network addressing	6	39	
	Network devices	Access point	12	34	
		PoA devices	4	27	
	Network layer protocols		13	48	
	Network topologies	Ad-hoc	189	94	
		Hierarchical	27	37	
	Routing	Connectivity info	Discovery	19	25
			Update	67	34
		Power based	Selective relaying	65	7
by Available power			83	7	
by Channel quality			26	19	
Sleep mode routing		60	0		
Synchronization		88	3		

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