

Cybersecurity: When Hackers Attack



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Speakers

Michael Chertoff, Chairman, The Chertoff Group; former Secretary, U.S. Department of Homeland Security

Shawn Henry, Cybersecurity Expert; former Executive Assistant Director, FBI

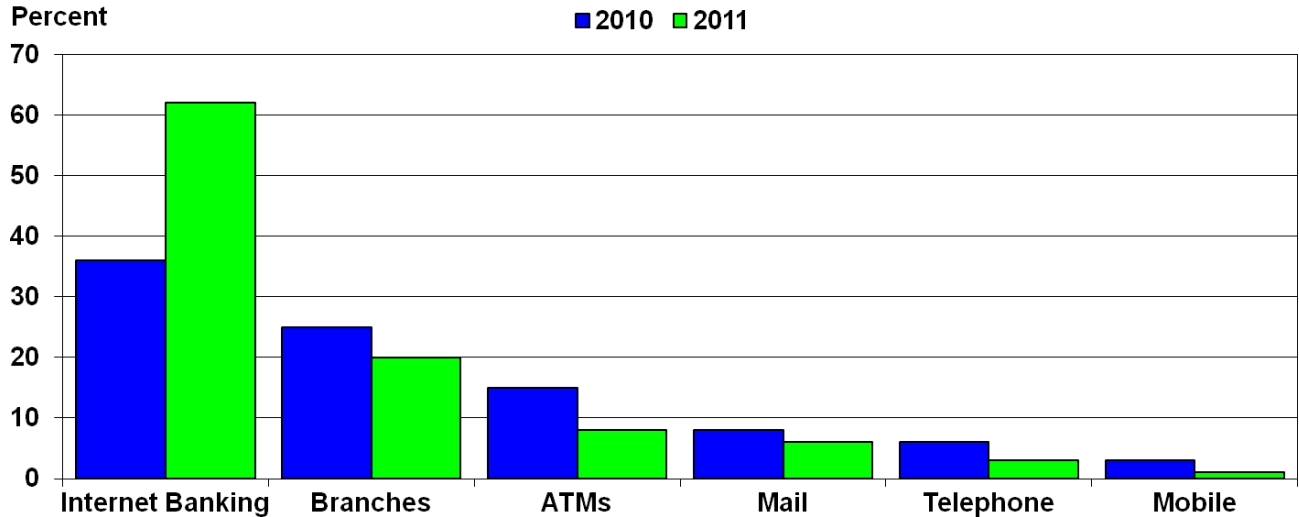
Mikko Hypponen, Chief Research Officer, F-Secure

Daniel McGahn, President and CEO, AMSC

Moderator

Marc Goodman, Founder, Future Crimes Institute; Global Security Advisor and Chair for Policy, Law & Ethics, Singularity University

Internet banking use rose sharply in 2011



Source: American Bankers Association.

Top 10 cybersecurity threats of 2011



- **Attacks via USB**
- **Large-scale targeted botnet attacks**
- **DDos attacks (distributed denial of service)**
- **Increased attacks on and via social networks**
- **Click-jacking and cross site scripting**
- **Phishing attacks from 'trusted' third parties**
- **Online fraud and money mules**
- **Cloud computing concerns**
- **Data exfiltration and insider threats**
- **Attacks on mobile devices and wireless networks**

6 high-profile data breaches from 2011



- Sony – Data breaches on multiple networks, data for over 100 million users was stolen.
- Epsilon – Was targeted by a spear-phishing attack and data from 75 of its clients was affected.
- RSA – A low cost spear-phishing attack instigated by an unnamed nation state compromised RSA's SecurID system.
- Sutter Physician Services – A thief stole a desktop computer with close to 3.3 million patients' unencrypted medical data.
- Tricare and SAIC – Backup tapes containing unencrypted SAIC data were stolen from the car of a Tricare employee.
- Nasdaq – Attackers breached *Director's Desk*, a cloud based communication system, possibly allowing them access to insider information.

Cybersecurity Facts



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- **In 2006, 8.3 million Americans were the victim of identity theft.**
- **Over the first half of 2009, more than 40,000 cyber attacks occurred against the Department of Defense.**
 - **These attacks cost the Pentagon over \$100 million.**
- **There are more than 3 million indications of malicious activity a year in civilian government networks.**

Inside the Chinese boom in corporate espionage

Bloomberg Businessweek article on AMSC and cybersecurity



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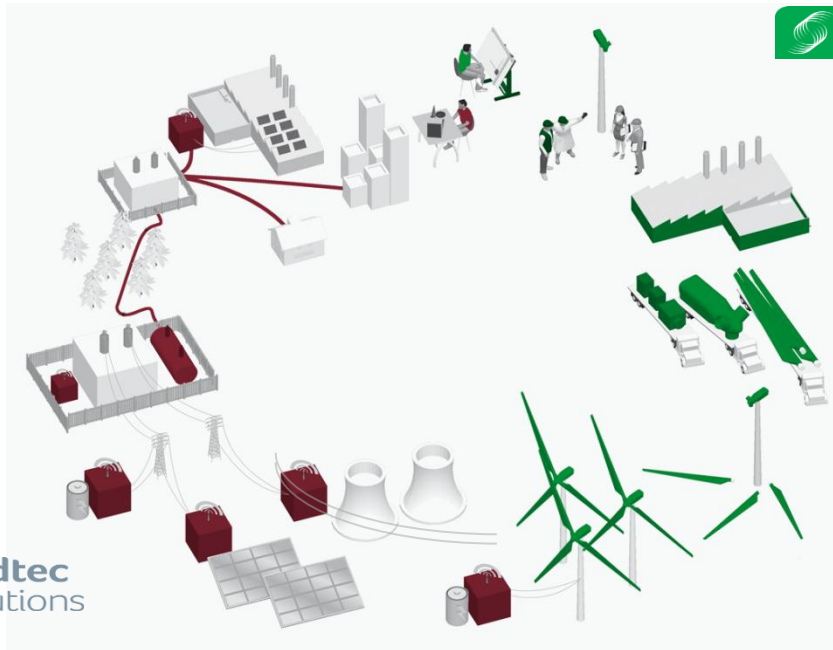


AMSC's Windtec and Gridtec Offerings

Unique spectrum of solutions from generation to delivery



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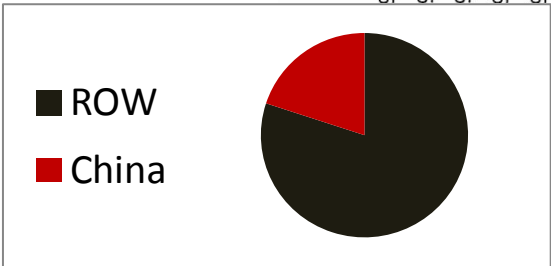
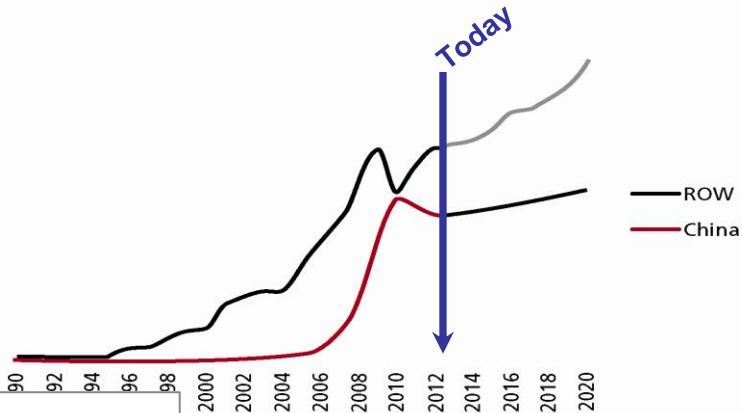


Windtec
Solutions

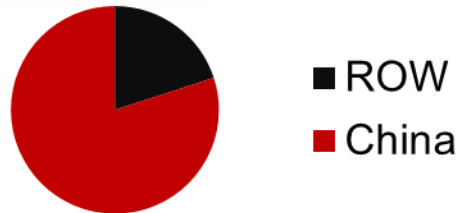


Gridtec
Solutions

Annual GW Installations



Local Content



Changes in the Landscape

LVRT outages in China



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“On April 17, 702 wind turbines were disconnected from the power grid in Jiuquan, Gansu province causing a 54% decrease in wind power output. This followed a similar accident in late February when 598 wind turbines were also disconnected from Jiuquan's power grid. Such accidents have exposed major problems in China's booming wind power industry, particularly the absence of low voltage ride through (LVRT) capability in China's wind turbines.”



MAKE Consulting, May 17, 2011

AMSC

February 2011 – March 2012



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The Three Sources of Cyber Attacks



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Criminals



Hactivists

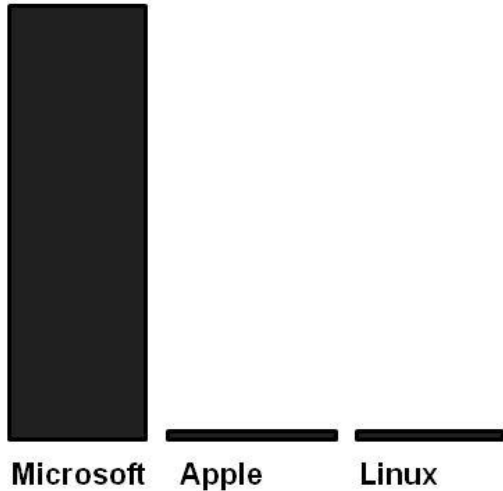


Governments





Malware distribution
across computer platforms



Malware distribution
across smartphone platforms

