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Technology	Category: Video Solutions	Demo Station
Fujitsu Media Solutions	<p>With evolution of the network and new devices, usage of online video has been dramatically on the rise. This follows SNS and is evidenced by services moving from universal to semantic. Fujitsu has a long history of conducting advanced technology research and offering leading edge video related products and services. Following the demands of the market, Fujitsu today offers comprehensive media solutions that greatly enhance our customers processing and workflow capabilities including acquisition, processing, archiving and distribution.</p>	D1
High Quality and Low Latency Video Codec	<p>In today's economic climate, broadcasters are looking for ways to reduce costs without sacrificing performance or operational capabilities. To address these requirements, Fujitsu has developed advanced solutions that allow broadcasters to transfer HD digital content utilizing their existing infrastructure. The Fujitsu line of MPEG-4 encoders sets the industry standard for superior picture quality, low latencies and the highest-possible video and audio fidelity at price points that meet our customers' budget requirements. The industry leading portfolio of Fujitsu compression solutions has been field-proven by global broadcast organizations for more than three years, providing customers with unmatched efficiency, quality, reliability and life-cycle management. The Fujitsu products also deliver greater immediate return on investment and the long-term value as compared to other compression technologies on the market. The Fujitsu Media solutions product suite includes IP-900, IP-9000, IP-9400 and IP-9500 encoder/decoder and are ideal for high definition news gathering and live events contribution.</p>	D2
Fast Software Transcoder for Media Content	<p>This solution features fast transcoding software that converts one encoding to another (e.g. conversion of MPEG-2 to H.264). Our technology achieves the real-time transcoding for HDTV content using only one generic server and is faster if multiple servers are utilized. Customers can reduce the processing time by as much as 90% when compared to competitive products. In addition, the software can combine data feeds from other consumer devices such as televisions and cellular phones and can also interoperate with related software running on the server. Our target customers include:</p> <ul style="list-style-type: none"> ■ Content production agencies ■ Video equipment manufacturers ■ Educational Institutions interested in distributing content across multiple devices 	D3
Digest Video Generation Technology	<p>Fujitsu has developed next generation digest video generation technology for efficiently searching for desired scenes and watching short clips from lengthy video sequences. Our technology is applicable to video application services in a wide variety of businesses. Key advantages include:</p> <ul style="list-style-type: none"> ■ Automatic generation of digest videos from various video sources including TV programs, movies, homemade videos and surveillance footages. ■ Proven high accuracy extraction of highlight scenes (For example for sports programs Fujitsu Digest Video Generation Technology has a success rate of 93% while competing technologies have a rate ranging from 50-70%). 	D4

Technology	Category: Video Solutions	Demo Station
<p>Integrity Assurance Technology for Real-time Video Recording</p>	<p>This new technology from Fujitsu, can ensure integrity of video data by utilizing digital signatures and when used along with an encoder-box can ensure integrity of recordings in real-time. To address concerns of privacy the technology permits video feeds to be cutoff while maintaining the integrity of recorded data. An example would be evidence collected from a surveillance camera with specific scenes related to privacy being deleted from the recording. This system along with encoders is currently being piloted by the Japanese police.</p> <p>Applications of the technology include:</p> <ul style="list-style-type: none"> ■ Surveillance cameras for multiple end use applications ■ Drive time recording for multiple transportation vehicles including mass transit ■ Video evidence of surgeries to protect against claims of medical malpractice 	<p>D5</p>
Technology	Category: Human Centric Services	Demo Station
<p>Fujitsu Opinion Data Mining Application for the iPhone</p>	<p>This technology showcases Fujitsu sentiment data mining and web business intelligence technology working in an iPhone/iPad environment and is an example of social behavior analysis to enable a human-centric intelligent society. The application allows users to search for restaurants from yelp.com restaurant reviews using either a keyword or the integrated speech to text functionality. Once a location or restaurant type is selected an opinion score is automatically generated from the underlying data based on several machine learning and user defined criteria including:</p> <ul style="list-style-type: none"> ■ Content similarity ■ Opinion pairs ■ Number of entries ■ Timing of reviews ■ Filtered for advertising/promotions ■ Number of data links <p>The technology can be easily extended to a variety of web data sources including blogs, wikis, twitter and SNS data and has applications in web marketing, advertising, brand protection and campaign analysis.</p>	<p>D6</p>
<p>English/Chinese OCR Engine for Screen Translation</p>	<p>This application is an English/Chinese Optical Character Recognition (OCR) engine to translate encrypted PDF files. Our OCR engine can recognize and translate texts on the pictures or in the encrypted documents. After capturing and localizing the text line, a cascade classifier combined with an automatic feature selection is utilized to accurately identify the language (English or Chinese). Later a high performance English/Chinese OCR engine is used to recognize the characters. This technology has been released by a leading Chinese dictionary and translation software maker, Kingsoft, as new functionality in their product "PowerWord 2009".</p> <p>The future roadmap includes:</p> <ul style="list-style-type: none"> ■ Multiple Asian language support including Japanese and Korean extensions ■ Information leakage management by screen image surveillance 	<p>D7</p>

Technology	Category: Human Centric Services	Demo Station
<p>Fujitsu Expedite Solution</p>	<p>Fujitsu Expedite Solution enables users to checkin at a kiosk for any service related appointment or event that involves registration and a waiting period before the service is delivered. Examples include doctors visits, amusement park rides, fast food restaurants etc. Users can rapidly register for a service using their registration card and inserting it into registration device. The device will indicate the number of people ahead in line, and will electronically notify the user when the service provider (or service) is available. Employing Fujitsu technology derived from color electronic paper products, the device has a lengthy interval of one week between charging periods.</p>	<p>H3</p>
<p>Ultra-Portable Color e-Reader</p>	<p>This prototype ultra-portable e-reader is only 6mm thick and weighs less than 220g. The e-reader utilizes Fujitsu's enhanced color electronic paper. Fujitsu's newest generation of electronic paper has improved brightness, a higher-contrast ratio (7:1), and fast image re-write technology (0.7 seconds per screen). By optimizing power consumption, the viewer should achieve 80 hours of usage between recharge cycles. The prototype device is available for several applications such as document viewing, presentation viewing, and photo viewing.</p>	
<p>Fujitsu PalmSecure™ Palm Vein Authentication Technology</p>	<p>The Fujitsu PalmSecure sensor uses near-infrared light to capture a person's palm vein pattern, generating a unique biometric template that is matched against pre-registered user palm vein patterns. The palm vein device can only recognize the pattern if the blood is actively flowing within the individual's veins, which means that forgery is virtually impossible.</p> <p>PalmSecure technology has been deployed worldwide in a wide range of vertical markets, including security, financial/banking, healthcare, commercial enterprises and educational facilities. Additional applications include physical access control, logical access control, retail POS systems, ATMs, kiosks, time and attendance management systems, visitor ID management and other industry-specific biometric applications.</p>	<p>H4</p>
<p>Fujitsu Med-Serv™ 50 Patient Kiosk</p>	<p>Patient Check-in Kiosk Benefits:</p> <ul style="list-style-type: none"> ■ Speed up check-in process and improve patient satisfaction ■ Keep patient-kiosk interaction simple as possible ■ Question items which require further qualification will be routed to a receptionist for action. The receptionist will know which items need update ■ Make sure all necessary information is collected ■ Provide value-add information up check-in process and improve patient satisfaction ■ Targeting healthcare market for implementation with Practice Management Systems and EMR 	

Technology	Category: Cloud Computing	Demo Station
<p>Web 2.0 Security Vulnerability Detection</p>	<p>We are working on static and dynamic analysis techniques for JavaScript. Since JavaScript is a peculiar, dynamic language, proper semantics and scalable analysis techniques for it are challenging. We have prototyped two solutions using static analysis techniques:</p> <ol style="list-style-type: none"> 1. We are able to automatically analyze client-side JavaScript form validation code that is used for validating forms in web applications. Through this analysis, we can automatically generate data that would be accepted on the form by the client side validation code. This data can then be used for deeper automated crawling, or penetration tests for vulnerabilities such as cross-site scripting. 2. A particular type of mashup involves rich-content advertisements that use JavaScript and are supposed to run in a sandboxed manner in the host webpage. It is important in such applications that the advertisement code not have access to global information from the web page it is running. We are able to analyze such code in mashups to check for information leakage from the host page. 	<p>D8</p>
<p>Secure Cloud Collaboration Platform</p>	<p>This cloud based platform, allows for clean differentiation between applications and data . With the aid of trusted hardware such as a trusted platform module, it enables trusted data binding for enforcing policy usage on application over data sets. We implemented the technology on a prototype system deployed on Amazon EC2. Software providers can upload software and data owners can search for algorithms to be executed privately on their data sets. Policy options such as a number of executions, data expiration and deletion, and encryption of data at rest can be set This technology adds benefits to applications such as software validation, were the software is executed against very sensitive data sets and requires a high amount of computational resources.</p>	<p>D9</p>
<p>TrustCube: Integrated Authentication for Mobile Phone</p>	<p>This offering is an IDaaS (Identity-as-a-Service) prototype targeted for smart phone users. It collects information about user, platform, and environment and makes informed decisions for service providers. The built in implicit authentication (IA) is used to identify users based on their activity patterns. Key advantages include:</p> <ul style="list-style-type: none"> ■ Flexible authentication policy ■ Better protection for service providers ■ Enhanced user experience 	<p>D10</p>
<p>Distributed Key-Value Store "x4u" with Rapid Aggregation Operation</p>	<p>A distributed key-value store (KVS) is a data store designed to manage a large amount of data, and to cope with high workloads. It provides a simple lookup interface, and spreads key-value pairs over multiple servers to achieve high availability and scalability. Its limited interface and its distributed nature, however, lead certain kinds of data manipulation/query, such as database-like "join" operation, very inefficient. To address this issue, Fujitsu Laboratories proposes a set of fast and scalable aggregation operations on a KVS. This enhanced functionality enables more wide spread usage of our KVS while maintaining scalability and high availability. Applications of this new technology include:</p> <ul style="list-style-type: none"> ■ Large scale web sites and business intelligence applications ■ Sensor data collection and analysis 	<p>D11</p>

Technology	Category: Emerging Network Technology	Demo Station
<p>Network Engineering Services Platform</p>	<p>A Web Based platform capable of hosting a number of network engineering services. The initial services implemented on the platform provide pre-deployment dimensioning of the next generation mobile networks (based on 3GPP LTE standards) and algorithms that enable optimization of deployed LTE networks (Self Optimizing Networks - SON). The initial SON features that will be demonstrated are optimizations that automatically compensate for coverage deficient areas in a LTE radio network or for when a cell is out of operation.</p>	<p>H1</p>
<p>High-Capacity Photonic Transmission Enabling a Human-Centric Society</p>	<p>Ultra-high capacity photonic network systems will be the backbone of the nervous system of a human-centric society. Human minds, and all things around us will become part of the network itself and the value of information and knowledge will be raised to unprecedented heights through staggering levels of interconnectivity. Society will heavily rely on this invisible but critical photonic backbone and performance and our well-being may be defined for a great part by its performance, efficiency and dependability. Research in NSIG is focused on realizing such photonic networks by studying the fundamentals of physical transmission, and maximizing efficiencies of resource utilization.</p>	<p>H2</p>